Australia
Capacities of Dowel-Type Fastener Joints in Australian Pine. — Ian Smith, Greg Foliente, Minh Nguyen, and Michael Syme; 17(6), 664-75 (2005).

Axial loads
Failure Surface for Concrete under Multiaxial Load—a Unified Approach. — Puay Eng Constance Seow and Somsak Swaddiwudhipong; 17(2), 219-28 (2005).

Bars
Effect of Bar Diameter on the Behavior of Lightly Reinforced Concrete Beams. — Alessandro P. Fantilli, Daniele Ferretti, and Gianpaolo Rosati; 17(1), 10-8 (2005).

Base course
Anisotropic Aggregate Base Inputs for Mechanistic Pavement Analysis Considering Effects of Moving Wheel Loads. — Umit Seyhan, Erol Tutumluer, and Hamza Yesilyurt; 17(5), 505-12 (2005).
Laboratory Evaluation of the Geogauge and Light Falling Weight Deflectometer as Construction Control Tools. — Khalid A. Alshibli, Murad Abu-Farsakh, and Ekrem Seyman; 17(5), 560-9 (2005).
Enhanced Performance of Stabilized By-Product Gypsum. — Mingjiang Tao and Zhongjie Zhang; 17(6), 617-23 (2005).
Class F Fly-Ash-Amended Soils as Highway Base Materials. — Sunil Arora and Ahmet H. Aydilek; 17(6), 640-9 (2005).

Beams
Effect of Bar Diameter on the Behavior of Lightly Reinforced Concrete Beams. — Alessandro P. Fantilli, Daniele Ferretti, and Gianpaolo Rosati; 17(1), 10-8 (2005).
Behavior of Patch-Repaired Concrete Structural Elements under Increasing Static Loads to Flexural Failure. — O. Río, C. Andrade, D. Izquierdo, and C. Alonso; 17(2), 168-77 (2005).

Bearing capacity
Behavior of Patch-Repaired Concrete Structural Elements under Increasing Static Loads to Flexural Failure. — O. Río, C. Andrade, D. Izquierdo, and C. Alonso; 17(2), 168-77 (2005).

Bending
Effect of Bar Diameter on the Behavior of Lightly Reinforced Concrete Beams. — Alessandro P. Fantilli, Daniele Ferretti, and Gianpaolo Rosati; 17(1), 10-8 (2005).

Bentonite
High-Density Bentonite Slurry for Seepage Barriers. — M. Asada and S. Horiuchi; 17(2), 178-87 (2005).
Large-Scale Cutoff Wall Model Test Using Ethanol Bentonite Slurry. — M. Asada, A. Ishikawa, and S. Horiuchi; 17(6), 719-24 (2005).

Biaxial stress
Unified Yield Criterion for Masonry and Concrete in Multiaxial Stress States. — L. Bortolotti, S. Carta, and D. Cireddu; 17(1), 54-62 (2005).

Binders, materials
Factors Affecting Binder Properties between Production and Construction. — Edith Arámbula Mercado, Amy Epps Martin, Eun Sug Park, Clifford Spiegelman, and Charles J. Glover; 17(1), 89-98 (2005).
Stabilization of Crushed Basaltic Rocks and Clay Mixtures Using Cementitious Additives. — Srijib Chakrabarti and Jayantha Kodikara; 17(4), 432-9 (2005).

Bitumen
Fracture Tests on Bitumen Films. — J. A. F. Harvey and D. Cebon; 17(1), 99-106 (2005).
Phenomenological Model for Monotonic and Cyclic Behavior of Pure Bitumen. — E. A. Ossa, V. S. Deshpande, and D. Cebon; 17(2), 188-97 (2005).
Unique Effects of Hydrated Lime Filler on the Performance-Related Properties of Asphalt Cements: Physical and Chemical Interactions Revisited. — Dallas N. Little and J. Claine Petersen; 17(2), 207-18 (2005).
Is Low-Temperature Creep of Asphalt Mastic Independent of Filler Shape and Mineralogy?—Arguments from Multiscale Analysis. — Roman Lackner, Markus Spiegl, Ronald Blab, and Josef Eberhardsteiner; 17(5), 485-91 (2005).

Bonding strength
Brick-Mortar Bond and Masonry Compressive Strength. — G. Sarangapani, B. V. Venkatarama Reddy, and K. S. Jagadish; 17(2), 229-37 (2005).
Reinforcing Steel Strains Measured by Bragg Grating Sensors. — Albin Kenel, Philipp Nellen, Andreas Frank, and Peter Marti; 17(4), 423-31 (2005).
New Test for Determination of Masonry Tensile Bond Strength. — Fouad M. Khalaf; 17(6), 725-32 (2005).

Brick masonry
Brick-Mortar Bond and Masonry Compressive Strength. — G. Sarangapani, B. V. Venkatarama Reddy, and K. S. Jagadish; 17(2), 229-37 (2005).

Bricks
Brick-Mortar Bond and Masonry Compressive Strength. — G. Sarangapani, B. V. Venkatarama Reddy, and K. S. Jagadish; 17(2), 229-37 (2005).
Properties of New and Recycled Clay Brick Aggregates for Use in Concrete. — Fouad M. Khalaf and Alan S. DeVenny; 17(4), 456-64 (2005).
New Test for Determination of Masonry Tensile Bond Strength. — Fouad M. Khalaf; 17(6), 725-32 (2005).

Bridge decks
Central Peeling Failure Behavior of Polymer Cement Mortar Retrofitting of Reinforced Concrete Beams. — Kouichi Satoh and Katsumi Kodama; 17(2), 126-36 (2005).
Quantitative Microstructural Investigation of Deteriorated Reinforced Concrete Bridge Deck. — Mohamed Elzafraney and Parviz Soroushian; 17(2), 159-67 (2005).

Bridge inspection
Evaluation of Wrought Iron for Continued Service in Historic Bridges. — Robert Gordon and Robert Knopf; 17(4), 393-9 (2005).

Bridges
Evaluation of Wrought Iron for Continued Service in Historic Bridges. — Robert Gordon and Robert Knopf; 17(4), 393-9 (2005).

Brittle failure
Fracture Tests on Bitumen Films. — J. A. F. Harvey and D. Cebon; 17(1), 99-106 (2005).

Brittleness
Does Calcium Leaching Increase Ductility of Cementitious Materials? Evidence from Direct Tensile Tests. — F. H. Heukamp, F.-J. Ulm, and J. T. Germaine; 17(3), 307-12 (2005).
Stress–Strain Model for Laterally Confined Concrete. — Weena P. Lokuge, J. G. Sanjayan, and Sujeeva Setunge; 17(6), 607-16 (2005).

Buildings
Monitoring of Origin and Evolution of Building Stones through Their Major Components. — A. C. Iñigo, F. J. López-Moro, S. Vicente-Tavera, and V. Rives; 17(4), 440-6 (2005).

Calcium carbonate
Unique Effects of Hydrated Lime Filler on the Performance-Related Properties of Asphalt Cements: Physical and Chemical Interactions Revisited. — Dallas N. Little and J. Claine Petersen; 17(2), 207-18 (2005).

Carbonation
Accelerated Assessment and Fuzzy Evaluation of Concrete Durability. — Zongjin Li, C. K. Chau, and Xiangming Zhou; 17(3), 257-63 (2005).
Nonlinear Coupling of Carbonation and Chloride Diffusion in Concrete. — W. Puatatsananon and V. E. Saouma; 17(3), 264-75 (2005).
Deterioration of Reinforced Concrete Structures due to Chemical–Physical Phenomena: Model-Based Simulation. — Anna V. Saetta; 17(3), 313-9 (2005).
Model for Simulating Carbonation of Fly Ash Concrete. — J. Khunthongkeaw and S. Tangtermsirikul; 17(5), 570-8 (2005).

Cement
Material Properties of High Volume Fly Ash Cement Paste Structural Fill. — Ata G. Doven and Ayse Pekrioglu; 17(6), 686-93 (2005).

Cements
Characterizing Rheology of Fresh Short Fiber Reinforced Cementitious Composite through Capillary Extrusion. — Xiangming Zhou and Zongjin Li; 17(1), 28-35 (2005).
Does Calcium Leaching Increase Ductility of Cementitious Materials? Evidence from Direct Tensile Tests. — F. H. Heukamp, F.-J. Ulm, and J. T. Germaine; 17(3), 307-12 (2005).
Prediction of 28 Days Compressive Strength of 53-Grade Cements Using Dimensional Analysis. — D. R. Phatak and N. P. Deshpande; 17(6), 733-5 (2005).

Chemical properties
Unique Effects of Hydrated Lime Filler on the Performance-Related Properties of Asphalt Cements: Physical and Chemical Interactions Revisited. — Dallas N. Little and J. Claine Petersen; 17(2), 207-18 (2005).

Chlorides
Nonlinear Coupling of Carbonation and Chloride Diffusion in Concrete. — W. Puatatsananon and V. E. Saouma; 17(3), 264-75 (2005).
Deterioration of Reinforced Concrete Structures due to Chemical–Physical Phenomena: Model-Based Simulation. — Anna V. Saetta; 17(3), 313-9 (2005).

Chromium
Effect of Alloy Composition on Atmospheric Corrosion of Weathering Steel. — Richard H. McCuen and Pedro Albrecht; 17(2), 117-25 (2005).

Clays
High-Density Bentonite Slurry for Seepage Barriers. — M. Asada and S. Horiuchi; 17(2), 178-87 (2005).
Properties of New and Recycled Clay Brick Aggregates for Use in Concrete. — Fouad M. Khalaf and Alan S. DeVenny; 17(4), 456-64 (2005).
Large-Scale Cutoff Wall Model Test Using Ethanol Bentonite Slurry. — M. Asada, A. Ishikawa, and S. Horiuchi; 17(6), 719-24 (2005).

Coastal environment
Performance of Volcanic Ash Based Precast and In Situ Blended Cement Concretes in Marine Environment. — Khandaker M. Anwar Hossain; 17(6), 694-702 (2005).

Compacted soils
Laboratory Evaluation of the Geogauge and Light Falling Weight Deflectometer as Construction Control Tools. — Khalid A. Alshibli, Murad Abu-Farsakh, and Ekrem Seyman; 17(5), 560-9 (2005).

Compaction
Corrosion of Reinforcement in Relation to Presence of Defects at the Interface between Steel and Concrete. — T. A. Söylev and R. François; 17(4), 447-55 (2005).

Composite materials
Effect of Water Sorption on Performance of Pultruded E-Glass/Vinylester Composites. — Wellington Chu and Vistasp M. Karbhari; 17(1), 63-71 (2005).
Shotcrete Elasticity Revisited in the Framework of Continuum Micromechanics: From Submicron to Meter Level. — Christian Hellmich and Herbert Mang; 17(3), 246-56 (2005).
Composite Damage Models for Diffusivity of Distressed Materials. — Yunping Xi and Ammar Nakhi; 17(3), 286-95 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part I: Processing and Static Mechanical Performance. — N. S. Broyles, K. N. E. Verghese, R. M. Davis, J. J. Lesko, and J. S. Riffle; 17(3), 320-33 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part II: Enviro-Mechanical Durability. — K. N. E. Verghese, N. S. Broyles, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 334-42 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part III: Theoretical Aspects. — K. N. E. Verghese, N. S. Broyles, S. W. Case, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 343-52 (2005).
Two-Step Approach to Prediction of Asphalt Concrete Modulus from Two-Phase Micromechanical Models. — Yongqi Li and John B. Metcalf; 17(4), 407-15 (2005).
Short Fiber Reinforced Geopolymer Composites Manufactured by Extrusion. — Zongjin Li, Yunsheng Zhang, and Xiangming Zhou; 17(6), 624-31 (2005).

Compression strength
Geotechnical Characterization of Some Indian Fly Ashes. — Sarat Kumar Das and Yudhbir; 17(5), 544-52 (2005).

Compressive strength
Compression Behavior and Failure Mechanisms of Concrete Masonry Prisms. — Hasan Orhun Köksal, Cengiz Karakoç, and Hakki Yildirim; 17(1), 107-15 (2005).
Rapid-Hardening Concrete Mixes. — Husam Najm and Perumalsamy Balaguru; 17(2), 198-206 (2005).
Brick-Mortar Bond and Masonry Compressive Strength. — G. Sarangapani, B. V. Venkatarama Reddy, and K. S. Jagadish; 17(2), 229-37 (2005).
Application of Probabilistic Neural Networks for Prediction of Concrete Strength. — Doo Kie Kim, Jong Jae Lee, Jong Han Lee, and Seong Kyu Chang; 17(3), 353-62 (2005).
Stabilization of Crushed Basaltic Rocks and Clay Mixtures Using Cementitious Additives. — Srijib Chakrabarti and Jayantha Kodikara; 17(4), 432-9 (2005).
Enhanced Performance of Stabilized By-Product Gypsum. — Mingjiang Tao and Zhongjie Zhang; 17(6), 617-23 (2005).
Cast-Concrete Products Made with FBC Ash and Wet-Collected Coal-Ash. — Tarun R. Naik, Rudolph N. Kraus, Yoon-moon Chun, and Francois D. Botha; 17(6), 659-63 (2005).
Performance of Volcanic Ash Based Precast and In Situ Blended Cement Concretes in Marine Environment. — Khandaker M. Anwar Hossain; 17(6), 694-702 (2005).
Prediction of 28 Days Compressive Strength of 53-Grade Cements Using Dimensional Analysis. — D. R. Phatak and N. P. Deshpande; 17(6), 733-5 (2005).

Computer software
Quantitative Microstructural Investigation of Deteriorated Reinforced Concrete Bridge Deck. — Mohamed Elzafraney and Parviz Soroushian; 17(2), 159-67 (2005).

Concrete
Influence of Ultrafine Fly Ash on the Early Age Response and the Shrinkage Cracking Potential of Concrete. — Kolluru V. Subramaniam, Roman Gromotka, Surendra P. Shah, Karthik Obla, and Russell Hill; 17(1), 45-53 (2005).
Unified Yield Criterion for Masonry and Concrete in Multiaxial Stress States. — L. Bortolotti, S. Carta, and D. Cireddu; 17(1), 54-62 (2005).
Rapid-Hardening Concrete Mixes. — Husam Najm and Perumalsamy Balaguru; 17(2), 198-206 (2005).
Thermal Degradation of Heterogeneous Concrete Materials. — K. Willam, I. Rhee, and Y. Xi; 17(3), 276-85 (2005).
Self-Consolidating Concrete for Use in Drilled Shaft Applications. — Donald Hodgson, III, Anton K. Schindler, Dan A. Brown, and Mary Stroup-Gardiner; 17(3), 363-9 (2005).
Reinforcing Steel Strains Measured by Bragg Grating Sensors. — Albin Kenel, Philipp Nellen, Andreas Frank, and Peter Marti; 17(4), 423-31 (2005).
Corrosion of Reinforcement in Relation to Presence of Defects at the Interface between Steel and Concrete. — T. A. Söylev and R. François; 17(4), 447-55 (2005).
Properties of New and Recycled Clay Brick Aggregates for Use in Concrete. — Fouad M. Khalaf and Alan S. DeVenny; 17(4), 456-64 (2005).
Bending and Uniaxial Tensile Tests on Concrete Reinforced with Hybrid Steel Fibers. — L. G. Sorelli, A. Meda, and G. A. Plizzari; 17(5), 519-27 (2005).
Model for Simulating Carbonation of Fly Ash Concrete. — J. Khunthongkeaw and S. Tangtermsirikul; 17(5), 570-8 (2005).
Flexural Fatigue-Life Distributions of Plain and Fibrous Concrete at Various Stress Levels. — Yaghoub Mohammadi and S. K. Kaushik; 17(6), 650-8 (2005).

Concrete blocks
Cast-Concrete Products Made with FBC Ash and Wet-Collected Coal-Ash. — Tarun R. Naik, Rudolph N. Kraus, Yoon-moon Chun, and Francois D. Botha; 17(6), 659-63 (2005).

Concrete deterioration
Central Peeling Failure Behavior of Polymer Cement Mortar Retrofitting of Reinforced Concrete Beams. — Kouichi Satoh and Katsumi Kodama; 17(2), 126-36 (2005).
Behavior of Patch-Repaired Concrete Structural Elements under Increasing Static Loads to Flexural Failure. — O. Río, C. Andrade, D. Izquierdo, and C. Alonso; 17(2), 168-77 (2005).
Nonlinear Coupling of Carbonation and Chloride Diffusion in Concrete. — W. Puatatsananon and V. E. Saouma; 17(3), 264-75 (2005).
Deterioration of Reinforced Concrete Structures due to Chemical–Physical Phenomena: Model-Based Simulation. — Anna V. Saetta; 17(3), 313-9 (2005).

Concrete durability
Accelerated Assessment and Fuzzy Evaluation of Concrete Durability. — Zongjin Li, C. K. Chau, and Xiangming Zhou; 17(3), 257-63 (2005).
Composite Damage Models for Diffusivity of Distressed Materials. — Yunping Xi and Ammar Nakhi; 17(3), 286-95 (2005).
Application of Probabilistic Neural Networks for Prediction of Concrete Strength. — Doo Kie Kim, Jong Jae Lee, Jong Han Lee, and Seong Kyu Chang; 17(3), 353-62 (2005).
Procedure to Interpret Electrical Conductivity Measurements in Cover Concrete during Rewetting. — Farshad Rajabipour, Jason Weiss, John D. Shane, Thomas O. Mason, and Surendra P. Shah; 17(5), 586-94 (2005).
Microfiber and Macrofiber Hybrid Fiber-Reinforced Concrete. — John S. Lawler, Davide Zampini, and Surendra P. Shah; 17(5), 595-604 (2005).
Performance of Volcanic Ash Based Precast and In Situ Blended Cement Concretes in Marine Environment. — Khandaker M. Anwar Hossain; 17(6), 694-702 (2005).

Concrete masonry
Compression Behavior and Failure Mechanisms of Concrete Masonry Prisms. — Hasan Orhun Köksal, Cengiz Karakoç, and Hakki Yildirim; 17(1), 107-15 (2005).
Cast-Concrete Products Made with FBC Ash and Wet-Collected Coal-Ash. — Tarun R. Naik, Rudolph N. Kraus, Yoon-moon Chun, and Francois D. Botha; 17(6), 659-63 (2005).

Concrete precast
Cast-Concrete Products Made with FBC Ash and Wet-Collected Coal-Ash. — Tarun R. Naik, Rudolph N. Kraus, Yoon-moon Chun, and Francois D. Botha; 17(6), 659-63 (2005).

Concrete properties
Effect of Curing and Deterioration on Stress Wave Velocities in Concrete. — Andrew J. Boyd and Christopher C. Ferraro; 17(2), 153-8 (2005).

Concrete structures
Stress–Strain Model for Laterally Confined Concrete. — Weena P. Lokuge, J. G. Sanjayan, and Sujeeva Setunge; 17(6), 607-16 (2005).

Concrete, reinforced
Effect of Bar Diameter on the Behavior of Lightly Reinforced Concrete Beams. — Alessandro P. Fantilli, Daniele Ferretti, and Gianpaolo Rosati; 17(1), 10-8 (2005).
Quantitative Microstructural Investigation of Deteriorated Reinforced Concrete Bridge Deck. — Mohamed Elzafraney and Parviz Soroushian; 17(2), 159-67 (2005).
Deterioration of Reinforced Concrete Structures due to Chemical–Physical Phenomena: Model-Based Simulation. — Anna V. Saetta; 17(3), 313-9 (2005).

Confinement
Stress–Strain Model for Laterally Confined Concrete. — Weena P. Lokuge, J. G. Sanjayan, and Sujeeva Setunge; 17(6), 607-16 (2005).

Connections
Effects of Decay on the Cyclic Properties of Nailed Connections. — Scott M. Kent, Robert J. Leichti, David V. Rosowsky, and Jeffrey J. Morrell; 17(5), 579-85 (2005).

Constitutive models
Phenomenological Model for Monotonic and Cyclic Behavior of Pure Bitumen. — E. A. Ossa, V. S. Deshpande, and D. Cebon; 17(2), 188-97 (2005).
Strain Self-Sensing Property and Strain Rate Dependent Constitutive Model of Austenitic Shape Memory Alloy: Experiment and Theory. — Hui Li, Chen-Xi Mao, and Jin-Ping Ou; 17(6), 676-85 (2005).

Construction costs
RCC/Soil-Cement: What's the Difference? — Ying-Kit Choi and Kenneth D. Hansen; 17(4), 371-8 (2005).

Construction materials
Application of Gray Relational Analysis to Evaluate HMA with Reclaimed Building Materials. — Der-Hsien Shen and Jia-Chong Du; 17(4), 400-6 (2005).
Development of an Analytical Method for Simultaneous Heat and Moisture Transfer in Building Materials Utilizing Transfer Function Method. — Menghao Qin and Rafik Belarbi; 17(5), 492-7 (2005).

Construction methods
Laboratory Evaluation of the Geogauge and Light Falling Weight Deflectometer as Construction Control Tools. — Khalid A. Alshibli, Murad Abu-Farsakh, and Ekrem Seyman; 17(5), 560-9 (2005).

Containment
High-Density Bentonite Slurry for Seepage Barriers. — M. Asada and S. Horiuchi; 17(2), 178-87 (2005).

Contamination
Factors Affecting Binder Properties between Production and Construction. — Edith Arámbula Mercado, Amy Epps Martin, Eun Sug Park, Clifford Spiegelman, and Charles J. Glover; 17(1), 89-98 (2005).

Control methods
Laboratory Evaluation of the Geogauge and Light Falling Weight Deflectometer as Construction Control Tools. — Khalid A. Alshibli, Murad Abu-Farsakh, and Ekrem Seyman; 17(5), 560-9 (2005).

Copper
Effect of Alloy Composition on Atmospheric Corrosion of Weathering Steel. — Richard H. McCuen and Pedro Albrecht; 17(2), 117-25 (2005).

Corrosion
Effect of Alloy Composition on Atmospheric Corrosion of Weathering Steel. — Richard H. McCuen and Pedro Albrecht; 17(2), 117-25 (2005).
Deterioration of Reinforced Concrete Structures due to Chemical–Physical Phenomena: Model-Based Simulation. — Anna V. Saetta; 17(3), 313-9 (2005).
Corrosion of Reinforcement in Relation to Presence of Defects at the Interface between Steel and Concrete. — T. A. Söylev and R. François; 17(4), 447-55 (2005).

Coupling
Nonlinear Coupling of Carbonation and Chloride Diffusion in Concrete. — W. Puatatsananon and V. E. Saouma; 17(3), 264-75 (2005).

Cracking
Effect of Bar Diameter on the Behavior of Lightly Reinforced Concrete Beams. — Alessandro P. Fantilli, Daniele Ferretti, and Gianpaolo Rosati; 17(1), 10-8 (2005).
Influence of Ultrafine Fly Ash on the Early Age Response and the Shrinkage Cracking Potential of Concrete. — Kolluru V. Subramaniam, Roman Gromotka, Surendra P. Shah, Karthik Obla, and Russell Hill; 17(1), 45-53 (2005).
Rapid-Hardening Concrete Mixes. — Husam Najm and Perumalsamy Balaguru; 17(2), 198-206 (2005).
Viscoelastoplastic Continuum Damage Model Application to Thermal Cracking of Asphalt Concrete. — Ghassan R. Chehab and Y. Richard Kim; 17(4), 384-92 (2005).
Reinforcing Steel Strains Measured by Bragg Grating Sensors. — Albin Kenel, Philipp Nellen, Andreas Frank, and Peter Marti; 17(4), 423-31 (2005).
Direct Measurement of Asphalt Binder Thermal Cracking. — Sang-Soo Kim; 17(6), 632-9 (2005).
Modeling of Moisture Diffusion in Crushed Basaltic Rock Stabilized with Cementitious Binders. — Jayantha Kodikara and Srijib Chakrabarti; 17(6), 703-10 (2005).

Creep
Asphalt Mixes Deformation Sensitivity to Change in Rheological Parameters. — Antoni Szydlo and Piotr Mackiewicz; 17(1), 1-9 (2005).
Is Low-Temperature Creep of Asphalt Mastic Independent of Filler Shape and Mineralogy?— Arguments from Multiscale Analysis. — Roman Lackner, Markus Spiegl, Ronald Blab, and Josef Eberhardsteiner; 17(5), 485-91 (2005).
Effect of Jordanian Oil Shale Fly Ash on Asphalt Mixes. — Ibrahim Asi and Abdullah Assa'ad; 17(5), 553-9 (2005).

Creep rupture
Fracture Tests on Bitumen Films. — J. A. F. Harvey and D. Cebon; 17(1), 99-106 (2005).

Cutoffs
High-Density Bentonite Slurry for Seepage Barriers. — M. Asada and S. Horiuchi; 17(2), 178-87 (2005).

Cyclic loads
Effects of Decay on the Cyclic Properties of Nailed Connections. — Scott M. Kent, Robert J. Leichti, David V. Rosowsky, and Jeffrey J. Morrell; 17(5), 579-85 (2005).
Strain Self-Sensing Property and Strain Rate Dependent Constitutive Model of Austenitic Shape Memory Alloy: Experiment and Theory. — Hui Li, Chen-Xi Mao, and Jin-Ping Ou; 17(6), 676-85 (2005).

Cyclic tests
Phenomenological Model for Monotonic and Cyclic Behavior of Pure Bitumen. — E. A. Ossa, V. S. Deshpande, and D. Cebon; 17(2), 188-97 (2005).

Damage
Thermal Degradation of Heterogeneous Concrete Materials. — K. Willam, I. Rhee, and Y. Xi; 17(3), 276-85 (2005).
Composite Damage Models for Diffusivity of Distressed Materials. — Yunping Xi and Ammar Nakhi; 17(3), 286-95 (2005).
Deterioration of Reinforced Concrete Structures due to Chemical–Physical Phenomena: Model-Based Simulation. — Anna V. Saetta; 17(3), 313-9 (2005).
Damage-Induced Modeling of Asphalt Mixtures through Computational Micromechanics and Cohesive Zone Fracture. — Yong-Rak Kim, D. H. Allen, and D. N. Little; 17(5), 477-84 (2005).
Viscoelastic–Viscoplastic Model with Damage for Asphalt Concrete. — Jacob Uzan; 17(5), 528-34 (2005).
Impact of Lime Modification of Asphalt and Freeze–Thaw Cycling on the Asphalt–Aggregate Interaction and Moisture Resistance to Moisture Damage. — Shin-Che Huang, Raymond E. Robertson, Jan F. Branthaver, and J. Claine Petersen; 17(6), 711-8 (2005).

Damage analysis
Compression Behavior and Failure Mechanisms of Concrete Masonry Prisms. — Hasan Orhun Köksal, Cengiz Karakoç, and Hakki Yildirim; 17(1), 107-15 (2005).

Decay
Effects of Decay on the Cyclic Properties of Nailed Connections. — Scott M. Kent, Robert J. Leichti, David V. Rosowsky, and Jeffrey J. Morrell; 17(5), 579-85 (2005).

Deflection
Reinforcing Steel Strains Measured by Bragg Grating Sensors. — Albin Kenel, Philipp Nellen, Andreas Frank, and Peter Marti; 17(4), 423-31 (2005).

Deformation
Asphalt Mixes Deformation Sensitivity to Change in Rheological Parameters. — Antoni Szydlo and Piotr Mackiewicz; 17(1), 1-9 (2005).
Degradation
Effect of Water Sorption on Performance of Pultruded E-Glass/Vinylester Composites. — Wellington Chu and Vistasp M. Karbhari; 17(1), 63-71 (2005).
Thermal Degradation of Heterogeneous Concrete Materials. — K. Willam, I. Rhee, and Y. Xi; 17(3), 276-85 (2005).
Design
Capacities of Dowel-Type Fastener Joints in Australian Pine. — Ian Smith, Greg Foliente, Minh Nguyen, and Michael Syme; 17(6), 664-75 (2005).
Deterioration
Quantitative Microstructural Investigation of Deteriorated Reinforced Concrete Bridge Deck. — Mohamed Elzafraney and Parviz Soroushian; 17(2), 159-67 (2005).
Sensitivity Analysis in Reliability-Based Lifetime Performance Prediction Using Simulation. — Jung S. Kong and Dan M. Frangopol; 17(3), 296-306 (2005).
Diffusivity
Composite Damage Models for Diffusivity of Distressed Materials. — Yunping Xi and Ammar Nakhi; 17(3), 286-95 (2005).
Dimensional analysis
Prediction of 28 Days Compressive Strength of 53-Grade Cements Using Dimensional Analysis. — D. R. Phatak and N. P. Deshpande; 17(6), 733-5 (2005).
Dispersion
Dispersion of Short Fibers in Cement. — D. D. L. Chung; 17(4), 379-83 (2005).
Displacement
Hot Mix Asphalt Mix Design Evaluation Using the Corelok Vacuum-Sealing Device. — M. Shane Buchanan and Thomas D. White; 17(2), 137-42 (2005).
Dowels
Capacities of Dowel-Type Fastener Joints in Australian Pine. — Ian Smith, Greg Foliente, Minh Nguyen, and Michael Syme; 17(6), 664-75 (2005).
Drilled shafts
Self-Consolidating Concrete for Use in Drilled Shaft Applications. — Donald Hodgson, III, Anton K. Schindler, Dan A. Brown, and Mary Stroup-Gardiner; 17(3), 363-9 (2005).
Ductility
Behavior of Patch-Repaired Concrete Structural Elements under Increasing Static Loads to Flexural Failure. — O. Río, C. Andrade, D. Izquierdo, and C. Alonso; 17(2), 168-77 (2005).
Does Calcium Leaching Increase Ductility of Cementitious Materials? Evidence from Direct Tensile Tests. — F. H. Heukamp, F.-J. Ulm, and J. T. Germaine; 17(3), 307-12 (2005).
Durability
Effect of Curing and Deterioration on Stress Wave Velocities in Concrete. — Andrew J. Boyd and Christopher C. Ferraro; 17(2), 153-8 (2005).
Deterioration of Reinforced Concrete Structures due to Chemical–Physical Phenomena: Model-Based Simulation. — Anna V. Saetta; 17(3), 313-9 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part II: Enviro-Mechanical Durability. — K. N. E. Verghese, N. S. Broyles, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 334-42 (2005).
RCC/Soil-Cement: What's the Difference? — Ying-Kit Choi and Kenneth D. Hansen; 17(4), 371-8 (2005).
Ladle Furnace Slag in Construction. — Juan M. Manso, Milagros Losañez, Juan A. Polanco, and Javier J. Gonzalez; 17(5), 513-8 (2005).
Enhanced Performance of Stabilized By-Product Gypsum. — Mingjiang Tao and Zhongjie Zhang; 17(6), 617-23 (2005).
Cast-Concrete Products Made with FBC Ash and Wet-Collected Coal-Ash. — Tarun R. Naik, Rudolph N. Kraus, Yoon-moon Chun, and Francois D. Botha; 17(6), 659-63 (2005).
Dynamic loads
Testing and Evaluation of Used Automobile Tires and Recycled Tire-Derived Materials for Low-Cost Crash Cushions. — Mustaque Hossain and Daniel T. Nabors; 17(1), 36-44 (2005).
Elasticity
Shotcrete Elasticity Revisited in the Framework of Continuum Micromechanics: From Submicron to Meter Level. — Christian Hellmich and Herbert Mang; 17(3), 246-56 (2005).
Two-Step Approach to Prediction of Asphalt Concrete Modulus from Two-Phase Micromechanical Models. — Yongqi Li and John B. Metcalf; 17(4), 407-15 (2005).
Strain Self-Sensing Property and Strain Rate Dependent Constitutive Model of Austenitic Shape Memory Alloy: Experiment and Theory. — Hui Li, Chen-Xi Mao, and Jin-Ping Ou; 17(6), 676-85 (2005).
Electrical conductivity
Procedure to Interpret Electrical Conductivity Measurements in Cover Concrete during Rewetting. — Farshad Rajabipour, Jason Weiss, John D. Shane, Thomas O. Mason, and Surendra P. Shah; 17(5), 586-94 (2005).
Electrical measurement
Procedure to Interpret Electrical Conductivity Measurements in Cover Concrete during Rewetting. — Farshad Rajabipour, Jason Weiss, John D. Shane, Thomas O. Mason, and Surendra P. Shah; 17(5), 586-94 (2005).
Electrical resistivity
Dispersion of Short Fibers in Cement. — D. D. L. Chung; 17(4), 379-83 (2005).
Envelope
Development of an Analytical Method for Simultaneous Heat and Moisture Transfer in Building Materials Utilizing Transfer Function Method. — Menghao Qin and Rafik Belarbi; 17(5), 492-7 (2005).
Environmental impacts
Assessment of Temperature Fluctuations in Asphalt Pavements Due to Thermal Environmental Conditions Using a Two-Dimensional, Transient Finite-Difference Approach. — C. Yavuzturk, K. Ksaibati, and A. D. Chiasson; 17(4), 465-75 (2005).
Failure modes
Short Fiber Reinforced Geopolymer Composites Manufactured by Extrusion. — Zongjin Li, Yunsheng Zhang, and Xiangming Zhou; 17(6), 624-31 (2005).
Failure surface
Failure Surface for Concrete under Multiaxial Load—a Unified Approach. — Puay Eng Constance Seow and Somsak Swaddiwudhipong; 17(2), 219-28 (2005).
Failures
Stress–Strain Model for Laterally Confined Concrete. — Weena P. Lokuge, J. G. Sanjayan, and Sujeeva Setunge; 17(6), 607-16 (2005).
Falling bodies
Laboratory Evaluation of the Geogauge and Light Falling Weight Deflectometer as Construction Control Tools. — Khalid A. Alshibli, Murad Abu-Farsakh, and Ekrem Seyman; 17(5), 560-9 (2005).
Fasteners
Capacities of Dowel-Type Fastener Joints in Australian Pine. — Ian Smith, Greg Foliente, Minh Nguyen, and Michael Syme; 17(6), 664-75 (2005).
Fatigue
Flexural Fatigue-Life Distributions of Plain and Fibrous Concrete at Various Stress Levels. — Yaghoub Mohammadi and S. K. Kaushik; 17(6), 650-8 (2005).
Feedback control
Accelerated Assessment and Fuzzy Evaluation of Concrete Durability. — Zongjin Li, C. K. Chau, and Xiangming Zhou; 17(3), 257-63 (2005).
Fiber composites
Behavior of Hybrid-Fiber Engineered Cementitious Composites Subjected to Dynamic Tensile Loading and Projectile Impact. — Mohamed Maalej, Ser Tong Quek, and Jing Zhang; 17(2), 143-52 (2005).
Fiber reinforced materials
Characterizing Rheology of Fresh Short Fiber Reinforced Cementitious Composite through Capillary Extrusion. — Xiangming Zhou and Zongjin Li; 17(1), 28-35 (2005).
Bending and Uniaxial Tensile Tests on Concrete Reinforced with Hybrid Steel Fibers. — L. G. Sorelli, A. Meda, and G. A. Plizzari; 17(5), 519-27 (2005).
Microfiber and Macrofiber Hybrid Fiber-Reinforced Concrete. — John S. Lawler, Davide Zampini, and Surendra P. Shah; 17(5), 595-604 (2005).
Flexural Fatigue-Life Distributions of Plain and Fibrous Concrete at Various Stress Levels. — Yaghoub Mohammadi and S. K. Kaushik; 17(6), 650-8 (2005).
Fiber reinforced polymers
Short Fiber Reinforced Geopolymer Composites Manufactured by Extrusion. — Zongjin Li, Yunsheng Zhang, and Xiangming Zhou; 17(6), 624-31 (2005).
Fibers
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part I: Processing and Static Mechanical Performance. — N. S. Broyles, K. N. E. Verghese, R. M. Davis, J. J. Lesko, and J. S. Riffle; 17(3), 320-33 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part II: Enviro-Mechanical Durability. — K. N. E. Verghese, N. S. Broyles, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 334-42 (2005).

Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part III: Theoretical Aspects. — K. N. E. Verghese, N. S. Broyles, S. W. Case, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 343-52 (2005).

Dispersion of Short Fibers in Cement. — D. D. L. Chung; 17(4), 379-83 (2005).

Evaluation of Open-Graded Friction Course Mixtures Containing Cellulose Fibers and Styrene Butadiene Rubber Polymer. — Hossam F. Hassan, Salim Al-Oraimi, and Ramzi Taha; 17(4), 416-22 (2005).

Field tests

Self-Consolidating Concrete for Use in Drilled Shaft Applications. — Donald Hodgson, III, Anton K. Schindler, Dan A. Brown, and Mary Stroup-Gardiner; 17(3), 363-9 (2005).

Fills

Unique Effects of Hydrated Lime Filler on the Performance-Related Properties of Asphalt Cements: Physical and Chemical Interactions Revisited. — Dallas N. Little and J. Claine Petersen; 17(2), 207-18 (2005).

Is Low-Temperature Creep of Asphalt Mastic Independent of Filler Shape and Mineralogy?— Arguments from Multiscale Analysis. — Roman Lackner, Markus Spiegl, Ronald Blab, and Josef Eberhardsteiner; 17(5), 485-91 (2005).

Material Properties of High Volume Fly Ash Cement Paste Structural Fill. — Ata G. Doven and Ayse Pekrioglu; 17(6), 686-93 (2005).

Fine-grained soils

Stabilization of Crushed Basaltic Rocks and Clay Mixtures Using Cementitious Additives. — Srijib Chakrabarti and Jayantha Kodikara; 17(4), 432-9 (2005).

Finite difference method

Assessment of Temperature Fluctuations in Asphalt Pavements Due to Thermal Environmental Conditions Using a Two-Dimensional, Transient Finite-Difference Approach. — C. Yavuzturk, K. Ksaibati, and A. D. Chiasson; 17(4), 465-75 (2005).

Finite differences

Nonlinear Coupling of Carbonation and Chloride Diffusion in Concrete. — W. Puatatsananon and V. E. Saouma; 17(3), 264-75 (2005).

Finite element method

Compression Behavior and Failure Mechanisms of Concrete Masonry Prisms. — Hasan Orhun Köksal, Cengiz Karakoç, and Hakki Yildirim; 17(1), 107-15 (2005).

Failure Surface for Concrete under Multiaxial Load—a Unified Approach. — Puay Eng Constance Seow and Somsak Swaddiwudhipong; 17(2), 219-28 (2005).

Deterioration of Reinforced Concrete Structures due to Chemical–Physical Phenomena: Model-Based Simulation. — Anna V. Saetta; 17(3), 313-9 (2005).

Damage-Induced Modeling of Asphalt Mixtures through Computational Micromechanics and Cohesive Zone Fracture. — Yong-Rak Kim, D. H. Allen, and D. N. Little; 17(5), 477-84 (2005).

Procedure to Interpret Electrical Conductivity Measurements in Cover Concrete during Rewetting. — Farshad Rajabipour, Jason Weiss, John D. Shane, Thomas O. Mason, and Surendra P. Shah; 17(5), 586-94 (2005).

Flexible pavements

Direct Measurement of Asphalt Binder Thermal Cracking. — Sang-Soo Kim; 17(6), 632-9 (2005).

Flexural strength

Brick-Mortar Bond and Masonry Compressive Strength. — G. Sarangapani, B. V. Venkatarama Reddy, and K. S. Jagadish; 17(2), 229-37 (2005).

Flexure

Flexural Fatigue-Life Distributions of Plain and Fibrous Concrete at Various Stress Levels. — Yaghoub Mohammadi and S. K. Kaushik; 17(6), 650-8 (2005).

Fly ash

Influence of Ultrafine Fly Ash on the Early Age Response and the Shrinkage Cracking Potential of Concrete. — Kolluru V. Subramaniam, Roman Gromotka, Surendra P. Shah, Karthik Obla, and Russell Hill; 17(1), 45-53 (2005).

Self-Consolidating Concrete for Use in Drilled Shaft Applications. — Donald Hodgson. III, Anton K. Schindler, Dan A. Brown, and Mary Stroup-Gardiner; 17(3), 363-9 (2005).

Geotechnical Characterization of Some Indian Fly Ashes. — Sarat Kumar Das and Yudhbir ; 17(5), 544-52 (2005).

Effect of Jordanian Oil Shale Fly Ash on Asphalt Mixes. — Ibrahim Asi and Abdullah Assa'ad; 17(5), 553-9 (2005).

Model for Simulating Carbonation of Fly Ash Concrete. — J. Khunthongkeaw and S. Tangtermsirikul; 17(5), 570-8 (2005).

Short Fiber Reinforced Geopolymer Composites Manufactured by Extrusion. — Zongjin Li, Yunsheng Zhang, and Xiangming Zhou; 17(6), 624-31 (2005).

Class F Fly-Ash-Amended Soils as Highway Base Materials. — Sunil Arora and Ahmet H. Aydilek; 17(6), 640-9 (2005).

Material Properties of High Volume Fly Ash Cement Paste Structural Fill. — Ata G. Doven and Ayse Pekrioglu; 17(6), 686-93 (2005).

Fourier analysis

Unified Method to Quantify Aggregate Shape Angularity and Texture Using Fourier Analysis. — Linbing Wang, Xingran Wang, Louay Mohammad, and Chris Abadie; 17(5), 498-504 (2005).

Fracture mechanics

Fracture Tests on Bitumen Films. — J. A. F. Harvey and D. Cebon; 17(1), 99-106 (2005).

Viscoelastic–Viscoplastic Model with Damage for Asphalt Concrete. — Jacob Uzan; 17(5), 528-34 (2005).

Fractures

Damage-Induced Modeling of Asphalt Mixtures through Computational Micromechanics and Cohesive Zone Fracture. — Yong-Rak Kim, D. H. Allen, and D. N. Little; 17(5), 477-84 (2005).

Bending and Uniaxial Tensile Tests on Concrete Reinforced with Hybrid Steel Fibers. — L. G. Sorelli, A. Meda, and G. A. Plizzari; 17(5), 519-27 (2005).

Freeze–thaw

Impact of Lime Modification of Asphalt and Freeze–Thaw Cycling on the Asphalt–Aggregate Interaction and Moisture Resistance to Moisture Damage. — Shin-Che Huang, Raymond E. Robertson, Jan F. Branthaver, and J. Claine Petersen; 17(6), 711-8 (2005).

Freeze-thaw

Accelerated Assessment and Fuzzy Evaluation of Concrete Durability. — Zongjin Li, C. K. Chau, and Xiangming Zhou; 17(3), 257-63 (2005).

Cast-Concrete Products Made with FBC Ash and Wet-Collected Coal-Ash. — Tarun R. Naik, Rudolph N. Kraus, Yoon-moon Chun, and Francois D. Botha; 17(6), 659-63 (2005).

Friction

Evaluation of Open-Graded Friction Course Mixtures Containing Cellulose Fibers and Styrene Butadiene Rubber Polymer. — Hossam F. Hassan, Salim Al-Oraimi, and Ramzi Taha; 17(4), 416-22 (2005).

Fuzzy sets

Accelerated Assessment and Fuzzy Evaluation of Concrete Durability. — Zongjin Li, C. K. Chau, and Xiangming Zhou; 17(3), 257-63 (2005).

Glass

Effect of Water Sorption on Performance of Pultruded E-Glass/Vinylester Composites. — Wellington Chu and Vistasp M. Karbhari; 17(1), 63-71 (2005).

Grain size

Geotechnical Characterization of Some Indian Fly Ashes. — Sarat Kumar Das and Yudhbir ; 17(5), 544-52 (2005).

Grouting

Compression Behavior and Failure Mechanisms of Concrete Masonry Prisms. — Hasan Orhun Köksal, Cengiz Karakoç, and Hakki Yildirim; 17(1), 107-15 (2005).

High-Density Bentonite Slurry for Seepage Barriers. — M. Asada and S. Horiuchi; 17(2), 178-87 (2005).

Material Properties of High Volume Fly Ash Cement Paste Structural Fill. — Ata G. Doven and Ayse Pekrioglu; 17(6), 686-93 (2005).

Gypsum

Enhanced Performance of Stabilized By-Product Gypsum. — Mingjiang Tao and Zhongjie Zhang; 17(6), 617-23 (2005).

Hazardous wastes

Large-Scale Cutoff Wall Model Test Using Ethanol Bentonite Slurry. — M. Asada, A. Ishikawa, and S. Horiuchi; 17(6), 719-24 (2005).

Heat capacity

New Measurement of Thermal Properties of Superpave Asphalt Concrete. — Joseph Luca and Donath Mrawira; 17(1), 72-9 (2005).

Heat flow

New Measurement of Thermal Properties of Superpave Asphalt Concrete. — Joseph Luca and Donath Mrawira; 17(1), 72-9 (2005).

Heat transfer

Assessment of Temperature Fluctuations in Asphalt Pavements Due to Thermal Environmental Conditions Using a Two-Dimensional, Transient Finite-Difference Approach. — C. Yavuzturk, K. Ksaibati, and A. D. Chiasson; 17(4), 465-75 (2005).

Development of an Analytical Method for Simultaneous Heat and Moisture Transfer in Building Materials Utilizing Transfer Function Method. — Menghao Qin and Rafik Belarbi; 17(5), 492-7 (2005).

High strength concretes

Failure Surface for Concrete under Multiaxial Load—a Unified Approach. — Puay Eng Constance Seow and Somsak Swaddiwudhipong; 17(2), 219-28 (2005).

Stress–Strain Model for Laterally Confined Concrete. — Weena P. Lokuge, J. G. Sanjayan, and Sujeeva Setunge; 17(6), 607-16 (2005).

Highway

Class F Fly-Ash-Amended Soils as Highway Base Materials. — Sunil Arora and Ahmet H. Aydilek; 17(6), 640-9 (2005).

Highway safety

Testing and Evaluation of Used Automobile Tires and Recycled Tire-Derived Materials for Low-Cost Crash Cushions. — Mustaque Hossain and Daniel T. Nabors; 17(1), 36-44 (2005).

Historic sites

Monitoring of Origin and Evolution of Building Stones through Their Major Components. — A. C. Iñigo, F. J. López-Moro, S. Vicente-Tavera, and V. Rives; 17(4), 440-6 (2005).

History

Evaluation of Wrought Iron for Continued Service in Historic Bridges. — Robert Gordon and Robert Knopf; 17(4), 393-9 (2005).

Homogeneity

Effect of Radial Inhomogeneity on Shear Properties of Asphalt Mixtures. — Haleh Azari, Richard McCuen, and Kevin Stuart; 17(1), 80-8 (2005).

Image analysis

Quantitative Microstructural Investigation of Deteriorated Reinforced Concrete Bridge Deck. — Mohamed Elzafraney and Parviz Soroushian; 17(2), 159-67 (2005).

Unified Method to Quantify Aggregate Shape Angularity and Texture Using Fourier Analysis. — Linbing Wang, Xingran Wang, Louay Mohammad, and Chris Abadie; 17(5), 498-504 (2005).

Impact tests

Behavior of Hybrid-Fiber Engineered Cementitious Composites Subjected to Dynamic Tensile Loading and Projectile Impact. — Mohamed Maalej, Ser Tong Quek, and Jing Zhang; 17(2), 143-52 (2005).

India

Geotechnical Characterization of Some Indian Fly Ashes. — Sarat Kumar Das and Yudhbir ; 17(5), 544-52 (2005).

Industrial wastes

Material Properties of High Volume Fly Ash Cement Paste Structural Fill. — Ata G. Doven and Ayse Pekrioglu; 17(6), 686-93 (2005).

Interfaces

Corrosion of Reinforcement in Relation to Presence of Defects at the Interface between Steel and Concrete. — T. A. Söylev and R. François; 17(4), 447-55 (2005).

Iron

Evaluation of Wrought Iron for Continued Service in Historic Bridges. — Robert Gordon and Robert Knopf; 17(4), 393-9 (2005).

Japan

Central Peeling Failure Behavior of Polymer Cement Mortar Retrofitting of Reinforced Concrete Beams. — Kouichi Satoh and Katsumi Kodama; 17(2), 126-36 (2005).

Joints

Fracture Tests on Bitumen Films. — J. A. F. Harvey and D. Cebon; 17(1), 99-106 (2005).

Capacities of Dowel-Type Fastener Joints in Australian Pine. — Ian Smith, Greg Foliente, Minh Nguyen, and Michael Syme; 17(6), 664-75 (2005).

New Test for Determination of Masonry Tensile Bond Strength. — Fouad M. Khalaf; 17(6), 725-32 (2005).

Jordan

Effect of Jordanian Oil Shale Fly Ash on Asphalt Mixes. — Ibrahim Asi and Abdullah Assa'ad; 17(5), 553-9 (2005).

Laboratory tests

RCC/Soil-Cement: What's the Difference? — Ying-Kit Choi and Kenneth D. Hansen; 17(4), 371-8 (2005).

Laboratory Evaluation of the Geogauge and Light Falling Weight Deflectometer as Construction Control Tools. — Khalid A. Alshibli, Murad Abu-Farsakh, and Ekrem Seyman; 17(5), 560-9 (2005).

Leaching

Does Calcium Leaching Increase Ductility of Cementitious Materials? Evidence from Direct Tensile Tests. — F. H. Heukamp, F.-J. Ulm, and J. T. Germaine; 17(3), 307-12 (2005).

Limestone

Enhanced Performance of Stabilized By-Product Gypsum. — Mingjiang Tao and Zhongjie Zhang; 17(6), 617-23 (2005).

Limit states

Behavior of Patch-Repaired Concrete Structural Elements under Increasing Static Loads to Flexural Failure. — O. Río, C. Andrade, D. Izquierdo, and C. Alonso; 17(2), 168-77 (2005).

Loads

Anisotropic Aggregate Base Inputs for Mechanistic Pavement Analysis Considering Effects of Moving Wheel Loads. — Umit Seyhan, Erol Tutumluer, and Hamza Yesilyurt; 17(5), 505-12 (2005).

Masonry

Unified Yield Criterion for Masonry and Concrete in Multiaxial Stress States. — L. Bortolotti, S. Carta, and D. Cireddu; 17(1), 54-62 (2005).

New Test for Determination of Masonry Tensile Bond Strength. — Fouad M. Khalaf; 17(6), 725-32 (2005).

Material properties

Testing and Evaluation of Used Automobile Tires and Recycled Tire-Derived Materials for Low-Cost Crash Cushions. — Mustaque Hossain and Daniel T. Nabors; 17(1), 36-44 (2005).

Influence of Ultrafine Fly Ash on the Early Age Response and the Shrinkage Cracking Potential of Concrete. — Kolluru V. Subramaniam, Roman Gromotka, Surendra P. Shah, Karthik Obla, and Russell Hill; 17(1), 45-53 (2005).

Unique Effects of Hydrated Lime Filler on the Performance-Related Properties of Asphalt Cements: Physical and Chemical Interactions Revisited. — Dallas N. Little and J. Claine Petersen; 17(2), 207-18 (2005).

Strain Self-Sensing Property and Strain Rate Dependent Constitutive Model of Austenitic Shape Memory Alloy: Experiment and Theory. — Hui Li, Chen-Xi Mao, and Jin-Ping Ou; 17(6), 676-85 (2005).

Material Properties of High Volume Fly Ash Cement Paste Structural Fill. — Ata G. Doven and Ayse Pekrioglu; 17(6), 686-93 (2005).

Material tests

Two-Step Approach to Prediction of Asphalt Concrete Modulus from Two-Phase Micromechanical Models. — Yongqi Li and John B. Metcalf; 17(4), 407-15 (2005).

Direct Measurement of Asphalt Binder Thermal Cracking. — Sang-Soo Kim; 17(6), 632-9 (2005).

Materials engineering

Challenges in Mechanics and Materials Research in the Twenty-First Century. — Ken P. Chong and Jorn Larsen-Basse; 17(3), 241-5 (2005).

Measurement

Effect of Curing and Deterioration on Stress Wave Velocities in Concrete. — Andrew J. Boyd and Christopher C. Ferraro; 17(2), 153-8 (2005).

Direct Measurement of Asphalt Binder Thermal Cracking. — Sang-Soo Kim; 17(6), 632-9 (2005).

Mechanical engineering

Challenges in Mechanics and Materials Research in the Twenty-First Century. — Ken P. Chong and Jorn Larsen-Basse; 17(3), 241-5 (2005).

Mechanical properties

Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part I: Processing and Static Mechanical Performance. — N. S. Broyles, K. N. E. Verghese, R. M. Davis, J. J. Lesko, and J. S. Riffle; 17(3), 320-33 (2005).

Ladle Furnace Slag in Construction. — Juan M. Manso, Milagros Losañez, Juan A. Polanco, and Javier J. Gonzalez; 17(5), 513-8 (2005).

Micromechanics

Shotcrete Elasticity Revisited in the Framework of Continuum Micromechanics: From Submicron to Meter Level. — Christian Hellmich and Herbert Mang; 17(3), 246-56 (2005).

Two-Step Approach to Prediction of Asphalt Concrete Modulus from Two-Phase Micromechanical Models. — Yongqi Li and John B. Metcalf; 17(4), 407-15 (2005).

Damage-Induced Modeling of Asphalt Mixtures through Computational Micromechanics and Cohesive Zone Fracture. — Yong-Rak Kim, D. H. Allen, and D. N. Little; 17(5), 477-84 (2005).

Microscopy

Quantitative Microstructural Investigation of Deteriorated Reinforced Concrete Bridge Deck. — Mohamed Elzafraney and Parviz Soroushian; 17(2), 159-67 (2005).

Microstructures

Quantitative Microstructural Investigation of Deteriorated Reinforced Concrete Bridge Deck. — Mohamed Elzafraney and Parviz Soroushian; 17(2), 159-67 (2005).

Mixing

Hot Mix Asphalt Mix Design Evaluation Using the Corelok Vacuum-Sealing Device. — M. Shane Buchanan and Thomas D. White; 17(2), 137-42 (2005).

Mixtures
Rapid-Hardening Concrete Mixes. — Husam Najm and Perumalsamy Balaguru; 17(2), 198-206 (2005).
Evaluation of Open-Graded Friction Course Mixtures Containing Cellulose Fibers and Styrene Butadiene Rubber Polymer. — Hossam F. Hassan, Salim Al-Oraimi, and Ramzi Taha; 17(4), 416-22 (2005).
Microfiber and Macrofiber Hybrid Fiber-Reinforced Concrete. — John S. Lawler, Davide Zampini, and Surendra P. Shah; 17(5), 595-604 (2005).
Class F Fly-Ash-Amended Soils as Highway Base Materials. — Sunil Arora and Ahmet H. Aydilek; 17(6), 640-9 (2005).

Models
Damage-Induced Modeling of Asphalt Mixtures through Computational Micromechanics and Cohesive Zone Fracture. — Yong-Rak Kim, D. H. Allen, and D. N. Little; 17(5), 477-84 (2005).
Model for Simulating Carbonation of Fly Ash Concrete. — J. Khunthongkeaw and S. Tangtermsirikul; 17(5), 570-8 (2005).

Moisture
Development of an Analytical Method for Simultaneous Heat and Moisture Transfer in Building Materials Utilizing Transfer Function Method. — Menghao Qin and Rafik Belarbi; 17(5), 492-7 (2005).
Modeling of Moisture Diffusion in Crushed Basaltic Rock Stabilized with Cementitious Binders. — Jayantha Kodikara and Srijib Chakrabarti; 17(6), 703-10 (2005).
Impact of Lime Modification of Asphalt and Freeze–Thaw Cycling on the Asphalt–Aggregate Interaction and Moisture Resistance to Moisture Damage. — Shin-Che Huang, Raymond E. Robertson, Jan F. Branthaver, and J. Claine Petersen; 17(6), 711-8 (2005).

Monitoring
Monitoring of Origin and Evolution of Building Stones through Their Major Components. — A. C. Iñigo, F. J. López-Moro, S. Vicente-Tavera, and V. Rives; 17(4), 440-6 (2005).

Mortar
Ladle Furnace Slag in Construction. — Juan M. Manso, Milagros Losañez, Juan A. Polanco, and Javier J. Gonzalez; 17(5), 513-8 (2005).

Mortars
Central Peeling Failure Behavior of Polymer Cement Mortar Retrofitting of Reinforced Concrete Beams. — Kouichi Satoh and Katsumi Kodama; 17(2), 126-36 (2005).
Brick-Mortar Bond and Masonry Compressive Strength. — G. Sarangapani, B. V. Venkatarama Reddy, and K. S. Jagadish; 17(2), 229-37 (2005).
Dispersion of Short Fibers in Cement. — D. D. L. Chung; 17(4), 379-83 (2005).
New Test for Determination of Masonry Tensile Bond Strength. — Fouad M. Khalaf; 17(6), 725-32 (2005).

Nails
Effects of Decay on the Cyclic Properties of Nailed Connections. — Scott M. Kent, Robert J. Leichti, David V. Rosowsky, and Jeffrey J. Morrell; 17(5), 579-85 (2005).

Neural networks
Neural Network Model for Asphalt Concrete Permeability. — Rafiqul Alam Tarefder, Luther White, and Musharraf Zaman; 17(1), 19-27 (2005).
Application of Probabilistic Neural Networks for Prediction of Concrete Strength. — Doo Kie Kim, Jong Jae Lee, Jong Han Lee, and Seong Kyu Chang; 17(3), 353-62 (2005).

Nondestructive tests
Effect of Radial Inhomogeneity on Shear Properties of Asphalt Mixtures. — Haleh Azari, Richard McCuen, and Kevin Stuart; 17(1), 80-8 (2005).
Effect of Curing and Deterioration on Stress Wave Velocities in Concrete. — Andrew J. Boyd and Christopher C. Ferraro; 17(2), 153-8 (2005).

Oil shale
Effect of Jordanian Oil Shale Fly Ash on Asphalt Mixes. — Ibrahim Asi and Abdullah Assa'ad; 17(5), 553-9 (2005).

Parameters
Asphalt Mixes Deformation Sensitivity to Change in Rheological Parameters. — Antoni Szydlo and Piotr Mackiewicz; 17(1), 1-9 (2005).
Prediction of 28 Days Compressive Strength of 53-Grade Cements Using Dimensional Analysis. — D. R. Phatak and N. P. Deshpande; 17(6), 733-5 (2005).

Pavement condition
Assessment of Temperature Fluctuations in Asphalt Pavements Due to Thermal Environmental Conditions Using a Two-Dimensional, Transient Finite-Difference Approach. — C. Yavuzturk, K. Ksaibati, and A. D. Chiasson; 17(4), 465-75 (2005).

Pavement deflection
Assessment of Temperature Fluctuations in Asphalt Pavements Due to Thermal Environmental Conditions Using a Two-Dimensional, Transient Finite-Difference Approach. — C. Yavuzturk, K. Ksaibati, and A. D. Chiasson; 17(4), 465-75 (2005).

Pavement design
Anisotropic Properties of Asphalt Concrete: Characterization and Implications for Pavement Design and Analysis. — Linbing Wang, Laureano R. Hoyos, Jay Wang, George Voyiadjis, and Chris Abadie; 17(5), 535-43 (2005).

Pavements
New Measurement of Thermal Properties of Superpave Asphalt Concrete. — Joseph Luca and Donath Mrawira; 17(1), 72-9 (2005).
Stabilization of Crushed Basaltic Rocks and Clay Mixtures Using Cementitious Additives. — Srijib Chakrabarti and Jayantha Kodikara; 17(4), 432-9 (2005).
Anisotropic Aggregate Base Inputs for Mechanistic Pavement Analysis Considering Effects of Moving Wheel Loads. — Umit Seyhan, Erol Tutumluer, and Hamza Yesilyurt; 17(5), 505-12 (2005).
Modeling of Moisture Diffusion in Crushed Basaltic Rock Stabilized with Cementitious Binders. — Jayantha Kodikara and Srijib Chakrabarti; 17(6), 703-10 (2005).

Penetration resistance
Behavior of Hybrid-Fiber Engineered Cementitious Composites Subjected to Dynamic Tensile Loading and Projectile Impact. — Mohamed Maalej, Ser Tong Quek, and Jing Zhang; 17(2), 143-52 (2005).

Performance evaluation
Accelerated Assessment and Fuzzy Evaluation of Concrete Durability. — Zongjin Li, C. K. Chau, and Xiangming Zhou; 17(3), 257-63 (2005).

Permeability
Neural Network Model for Asphalt Concrete Permeability. — Rafiqul Alam Tarefder, Luther White, and Musharraf Zaman; 17(1), 19-27 (2005).
High-Density Bentonite Slurry for Seepage Barriers. — M. Asada and S. Horiuchi; 17(2), 178-87 (2005).
Accelerated Assessment and Fuzzy Evaluation of Concrete Durability. — Zongjin Li, C. K. Chau, and Xiangming Zhou; 17(3), 257-63 (2005).
Microfiber and Macrofiber Hybrid Fiber-Reinforced Concrete. — John S. Lawler, Davide Zampini, and Surendra P. Shah; 17(5), 595-604 (2005).
Performance of Volcanic Ash Based Precast and In Situ Blended Cement Concretes in Marine Environment. — Khandaker M. Anwar Hossain; 17(6), 694-702 (2005).
Large-Scale Cutoff Wall Model Test Using Ethanol Bentonite Slurry. — M. Asada, A. Ishikawa, and S. Horiuchi; 17(6), 719-24 (2005).

Phosphorous
Effect of Alloy Composition on Atmospheric Corrosion of Weathering Steel. — Richard H. McCuen and Pedro Albrecht; 17(2), 117-25 (2005).

Physical properties
Ladle Furnace Slag in Construction. — Juan M. Manso, Milagros Losañez, Juan A. Polanco, and Javier J. Gonzalez; 17(5), 513-8 (2005).

Plastic analysis
Compression Behavior and Failure Mechanisms of Concrete Masonry Prisms. — Hasan Orhun Köksal, Cengiz Karakoç, and Hakki Yildirim; 17(1), 107-15 (2005).

Plastic deformation
Effect of Jordanian Oil Shale Fly Ash on Asphalt Mixes. — Ibrahim Asi and Abdullah Assa'ad; 17(5), 553-9 (2005).

Poisson ratio
Shotcrete Elasticity Revisited in the Framework of Continuum Micromechanics: From Submicron to Meter Level. — Christian Hellmich and Herbert Mang; 17(3), 246-56 (2005).

Polymers
Central Peeling Failure Behavior of Polymer Cement Mortar Retrofitting of Reinforced Concrete Beams. — Kouichi Satoh and Katsumi Kodama; 17(2), 126-36 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part III: Theoretical Aspects. — K. N. E. Verghese, N. S. Broyles, S. W. Case, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 343-52 (2005).
Evaluation of Open-Graded Friction Course Mixtures Containing Cellulose Fibers and Styrene

Butadiene Rubber Polymer. — Hossam F. Hassan, Salim Al-Oraimi, and Ramzi Taha; 17(4), 416-22 (2005).

Porosity

Performance of Volcanic Ash Based Precast and In Situ Blended Cement Concretes in Marine Environment. — Khandaker M. Anwar Hossain; 17(6), 694-702 (2005).

Porous pavements

Evaluation of Open-Graded Friction Course Mixtures Containing Cellulose Fibers and Styrene Butadiene Rubber Polymer. — Hossam F. Hassan, Salim Al-Oraimi, and Ramzi Taha; 17(4), 416-22 (2005).

Portland cements

Dispersion of Short Fibers in Cement. — D. D. L. Chung; 17(4), 379-83 (2005).

Class F Fly-Ash-Amended Soils as Highway Base Materials. — Sunil Arora and Ahmet H. Aydilek; 17(6), 640-9 (2005).

Predictions

Prediction of 28 Days Compressive Strength of 53-Grade Cements Using Dimensional Analysis. — D. R. Phatak and N. P. Deshpande; 17(6), 733-5 (2005).

Preservation

Evaluation of Wrought Iron for Continued Service in Historic Bridges. — Robert Gordon and Robert Knopf; 17(4), 393-9 (2005).

Probabilistic methods

Application of Probabilistic Neural Networks for Prediction of Concrete Strength. — Doo Kie Kim, Jong Jae Lee, Jong Han Lee, and Seong Kyu Chang; 17(3), 353-62 (2005).

Probability

Sensitivity Analysis in Reliability-Based Lifetime Performance Prediction Using Simulation. — Jung S. Kong and Dan M. Frangopol; 17(3), 296-306 (2005).

Projectiles

Behavior of Hybrid-Fiber Engineered Cementitious Composites Subjected to Dynamic Tensile Loading and Projectile Impact. — Mohamed Maalej, Ser Tong Quek, and Jing Zhang; 17(2), 143-52 (2005).

Pultrusion

Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part I: Processing and Static Mechanical Performance. — N. S. Broyles, K. N. E. Verghese, R. M. Davis, J. J. Lesko, and J. S. Riffle; 17(3), 320-33 (2005).

Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part II: Enviro-Mechanical Durability. — K. N. E. Verghese, N. S. Broyles, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 334-42 (2005).

Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part III: Theoretical Aspects. — K. N. E. Verghese, N. S. Broyles, S. W. Case, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 343-52 (2005).

Quality control

Factors Affecting Binder Properties between Production and Construction. — Edith Arámbula Mercado, Amy Epps Martin, Eun Sug Park, Clifford Spiegelman, and Charles J. Glover; 17(1), 89-98 (2005).

Hot Mix Asphalt Mix Design Evaluation Using the Corelok Vacuum-Sealing Device. — M. Shane Buchanan and Thomas D. White; 17(2), 137-42 (2005).

Laboratory Evaluation of the Geogauge and Light Falling Weight Deflectometer as Construction Control Tools. — Khalid A. Alshibli, Murad Abu-Farsakh, and Ekrem Seyman; 17(5), 560-9 (2005).

Quantitative analysis

Quantitative Microstructural Investigation of Deteriorated Reinforced Concrete Bridge Deck. — Mohamed Elzafraney and Parviz Soroushian; 17(2), 159-67 (2005).

Radiography

Effect of Radial Inhomogeneity on Shear Properties of Asphalt Mixtures. — Haleh Azari, Richard McCuen, and Kevin Stuart; 17(1), 80-8 (2005).

Recycling

Testing and Evaluation of Used Automobile Tires and Recycled Tire-Derived Materials for Low-Cost Crash Cushions. — Mustaque Hossain and Daniel T. Nabors; 17(1), 36-44 (2005).

Application of Gray Relational Analysis to Evaluate HMA with Reclaimed Building Materials. — Der-Hsien Shen and Jia-Chong Du; 17(4), 400-6 (2005).

Properties of New and Recycled Clay Brick Aggregates for Use in Concrete. — Fouad M. Khalaf and Alan S. DeVenny; 17(4), 456-64 (2005).

Cast-Concrete Products Made with FBC Ash and Wet-Collected Coal-Ash. — Tarun R. Naik, Rudolph N. Kraus, Yoon-moon Chun, and Francois D. Botha; 17(6), 659-63 (2005).

Material Properties of High Volume Fly Ash Cement Paste Structural Fill. — Ata G. Doven and Ayse Pekrioglu; 17(6), 686-93 (2005).

Regression analysis

Neural Network Model for Asphalt Concrete Permeability. — Rafiqul Alam Tarefder, Luther White, and Musharraf Zaman; 17(1), 19-27 (2005).

Rehabilitation

Central Peeling Failure Behavior of Polymer Cement Mortar Retrofitting of Reinforced Concrete Beams. — Kouichi Satoh and Katsumi Kodama; 17(2), 126-36 (2005).

Behavior of Patch-Repaired Concrete Structural Elements under Increasing Static Loads to Flexural Failure. — O. Río, C. Andrade, D. Izquierdo, and C. Alonso; 17(2), 168-77 (2005).

Reinforcement

Reinforcing Steel Strains Measured by Bragg Grating Sensors. — Albin Kenel, Philipp Nellen, Andreas Frank, and Peter Marti; 17(4), 423-31 (2005).

Corrosion of Reinforcement in Relation to Presence of Defects at the Interface between Steel and Concrete. — T. A. Söylev and R. François; 17(4), 447-55 (2005).

Research

Challenges in Mechanics and Materials Research in the Twenty-First Century. — Ken P. Chong and Jorn Larsen-Basse; 17(3), 241-5 (2005).

Rheological properties

Asphalt Mixes Deformation Sensitivity to Change in Rheological Parameters. — Antoni Szydlo and Piotr Mackiewicz; 17(1), 1-9 (2005).

Rheology

Characterizing Rheology of Fresh Short Fiber Reinforced Cementitious Composite through Capillary Extrusion. — Xiangming Zhou and Zongjin Li; 17(1), 28-35 (2005).

Road construction

Factors Affecting Binder Properties between Production and Construction. — Edith Arámbula Mercado, Amy Epps Martin, Eun Sug Park, Clifford Spiegelman, and Charles J. Glover; 17(1), 89-98 (2005).

Rocks

Stabilization of Crushed Basaltic Rocks and Clay Mixtures Using Cementitious Additives. — Srijib Chakrabarti and Jayantha Kodikara; 17(4), 432-9 (2005).

Modeling of Moisture Diffusion in Crushed Basaltic Rock Stabilized with Cementitious Binders. — Jayantha Kodikara and Srijib Chakrabarti; 17(6), 703-10 (2005).

Roller compacted concrete

RCC/Soil-Cement: What's the Difference? — Ying-Kit Choi and Kenneth D. Hansen; 17(4), 371-8 (2005).

Seepage

Large-Scale Cutoff Wall Model Test Using Ethanol Bentonite Slurry. — M. Asada, A. Ishikawa, and S. Horiuchi; 17(6), 719-24 (2005).

Sensitivity analysis

Sensitivity Analysis in Reliability-Based Lifetime Performance Prediction Using Simulation. — Jung S. Kong and Dan M. Frangopol; 17(3), 296-306 (2005).

Sensors

Reinforcing Steel Strains Measured by Bragg Grating Sensors. — Albin Kenel, Philipp Nellen, Andreas Frank, and Peter Marti; 17(4), 423-31 (2005).

Service life

Evaluation of Wrought Iron for Continued Service in Historic Bridges. — Robert Gordon and Robert Knopf; 17(4), 393-9 (2005).

Service loads

Behavior of Patch-Repaired Concrete Structural Elements under Increasing Static Loads to Flexural Failure. — O. Río, C. Andrade, D. Izquierdo, and C. Alonso; 17(2), 168-77 (2005).

Shape

Unified Method to Quantify Aggregate Shape Angularity and Texture Using Fourier Analysis. — Linbing Wang, Xingran Wang, Louay Mohammad, and Chris Abadie; 17(5), 498-504 (2005).

Shape memory effect

Strain Self-Sensing Property and Strain Rate Dependent Constitutive Model of Austenitic Shape Memory Alloy: Experiment and Theory. — Hui Li, Chen-Xi Mao, and Jin-Ping Ou; 17(6), 676-85 (2005).

Shear properties

Effect of Radial Inhomogeneity on Shear Properties of Asphalt Mixtures. — Haleh Azari, Richard McCuen, and Kevin Stuart; 17(1), 80-8 (2005).

Shear stress

Anisotropic Properties of Asphalt Concrete: Characterization and Implications for Pavement Design and Analysis. — Linbing Wang, Laureano R. Hoyos, Jay Wang, George Voyiadjis, and Chris Abadie; 17(5), 535-43 (2005).

Shotcrete
Shotcrete Elasticity Revisited in the Framework of Continuum Micromechanics: From Submicron to Meter Level. — Christian Hellmich and Herbert Mang; 17(3), 246-56 (2005).

Shrinkage
Influence of Ultrafine Fly Ash on the Early Age Response and the Shrinkage Cracking Potential of Concrete. — Kolluru V. Subramaniam, Roman Gromotka, Surendra P. Shah, Karthik Obla, and Russell Hill; 17(1), 45-53 (2005).
Rapid-Hardening Concrete Mixes. — Husam Najm and Perumalsamy Balaguru; 17(2), 198-206 (2005).
Modeling of Moisture Diffusion in Crushed Basaltic Rock Stabilized with Cementitious Binders. — Jayantha Kodikara and Srijib Chakrabarti; 17(6), 703-10 (2005).

Simulation
Sensitivity Analysis in Reliability-Based Lifetime Performance Prediction Using Simulation. — Jung S. Kong and Dan M. Frangopol; 17(3), 296-306 (2005).
Model for Simulating Carbonation of Fly Ash Concrete. — J. Khunthongkeaw and S. Tangtermsirikul; 17(5), 570-8 (2005).

Size effect
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part I: Processing and Static Mechanical Performance. — N. S. Broyles, K. N. E. Verghese, R. M. Davis, J. J. Lesko, and J. S. Riffle; 17(3), 320-33 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part II: Enviro-Mechanical Durability. — K. N. E. Verghese, N. S. Broyles, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 334-42 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part III: Theoretical Aspects. — K. N. E. Verghese, N. S. Broyles, S. W. Case, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 343-52 (2005).

Slag
Self-Consolidating Concrete for Use in Drilled Shaft Applications. — Donald Hodgson, III, Anton K. Schindler, Dan A. Brown, and Mary Stroup-Gardiner; 17(3), 363-9 (2005).
Ladle Furnace Slag in Construction. — Juan M. Manso, Milagros Losañez, Juan A. Polanco, and Javier J. Gonzalez; 17(5), 513-8 (2005).

Slip
Characterizing Rheology of Fresh Short Fiber Reinforced Cementitious Composite through Capillary Extrusion. — Xiangming Zhou and Zongjin Li; 17(1), 28-35 (2005).

Slurry walls
High-Density Bentonite Slurry for Seepage Barriers. — M. Asada and S. Horiuchi; 17(2), 178-87 (2005).
Large-Scale Cutoff Wall Model Test Using Ethanol Bentonite Slurry. — M. Asada, A. Ishikawa, and S. Horiuchi; 17(6), 719-24 (2005).

Soil cement
Ladle Furnace Slag in Construction. — Juan M. Manso, Milagros Losañez, Juan A. Polanco, and Javier J. Gonzalez; 17(5), 513-8 (2005).

Soil compaction
Geotechnical Characterization of Some Indian Fly Ashes. — Sarat Kumar Das and Yudhbir ; 17(5), 544-52 (2005).

Soil mixing
Large-Scale Cutoff Wall Model Test Using Ethanol Bentonite Slurry. — M. Asada, A. Ishikawa, and S. Horiuchi; 17(6), 719-24 (2005).

Soil stabilization
Class F Fly-Ash-Amended Soils as Highway Base Materials. — Sunil Arora and Ahmet H. Aydilek; 17(6), 640-9 (2005).
Material Properties of High Volume Fly Ash Cement Paste Structural Fill. — Ata G. Doven and Ayse Pekrioglu; 17(6), 686-93 (2005).

Solvents
High-Density Bentonite Slurry for Seepage Barriers. — M. Asada and S. Horiuchi; 17(2), 178-87 (2005).

Sorption
Effect of Water Sorption on Performance of Pultruded E-Glass/Vinylester Composites. — Wellington Chu and Vistasp M. Karbhari; 17(1), 63-71 (2005).
Procedure to Interpret Electrical Conductivity Measurements in Cover Concrete during Rewetting. — Farshad Rajabipour, Jason Weiss, John D. Shane, Thomas O. Mason, and Surendra P. Shah; 17(5), 586-94 (2005).

Stabilization
Enhanced Performance of Stabilized By-Product Gypsum. — Mingjiang Tao and Zhongjie Zhang; 17(6), 617-23 (2005).

Static loads
Testing and Evaluation of Used Automobile Tires and Recycled Tire-Derived Materials for Low-Cost Crash Cushions. — Mustaque Hossain and Daniel T. Nabors; 17(1), 36-44 (2005).

Statistical analysis
Monitoring of Origin and Evolution of Building Stones through Their Major Components. — A. C. Iñigo, F. J. López-Moro, S. Vicente-Tavera, and V. Rives; 17(4), 440-6 (2005).

Statistics
Effect of Radial Inhomogeneity on Shear Properties of Asphalt Mixtures. — Haleh Azari, Richard McCuen, and Kevin Stuart; 17(1), 80-8 (2005).

Steel
Effect of Alloy Composition on Atmospheric Corrosion of Weathering Steel. — Richard H. McCuen and Pedro Albrecht; 17(2), 117-25 (2005).
Corrosion of Reinforcement in Relation to Presence of Defects at the Interface between Steel and Concrete. — T. A. Söylev and R. François; 17(4), 447-55 (2005).
Flexural Fatigue-Life Distributions of Plain and Fibrous Concrete at Various Stress Levels. — Yaghoub Mohammadi and S. K. Kaushik; 17(6), 650-8 (2005).

Steel fibers
Failure Surface for Concrete under Multiaxial Load—a Unified Approach. — Puay Eng Constance Seow and Somsak Swaddiwudhipong; 17(2), 219-28 (2005).
Bending and Uniaxial Tensile Tests on Concrete Reinforced with Hybrid Steel Fibers. — L. G. Sorelli, A. Meda, and G. A. Plizzari; 17(5), 519-27 (2005).

Stiffness
Capacities of Dowel-Type Fastener Joints in Australian Pine. — Ian Smith, Greg Foliente, Minh Nguyen, and Michael Syme; 17(6), 664-75 (2005).

Stones
Monitoring of Origin and Evolution of Building Stones through Their Major Components. — A. C. Iñigo, F. J. López-Moro, S. Vicente-Tavera, and V. Rives; 17(4), 440-6 (2005).

Storage tanks
Factors Affecting Binder Properties between Production and Construction. — Edith Arámbula Mercado, Amy Epps Martin, Eun Sug Park, Clifford Spiegelman, and Charles J. Glover; 17(1), 89-98 (2005).

Strain
Strain Self-Sensing Property and Strain Rate Dependent Constitutive Model of Austenitic Shape Memory Alloy: Experiment and Theory. — Hui Li, Chen-Xi Mao, and Jin-Ping Ou; 17(6), 676-85 (2005).

Strain gages
Direct Measurement of Asphalt Binder Thermal Cracking. — Sang-Soo Kim; 17(6), 632-9 (2005).

Strain measurement
Reinforcing Steel Strains Measured by Bragg Grating Sensors. — Albin Kenel, Philipp Nellen, Andreas Frank, and Peter Marti; 17(4), 423-31 (2005).

Strain rate
Behavior of Hybrid-Fiber Engineered Cementitious Composites Subjected to Dynamic Tensile Loading and Projectile Impact. — Mohamed Maalej, Ser Tong Quek, and Jing Zhang; 17(2), 143-52 (2005).

Stress strain relations
Stress–Strain Model for Laterally Confined Concrete. — Weena P. Lokuge, J. G. Sanjayan, and Sujeeva Setunge; 17(6), 607-16 (2005).

Stripping
Effect of Jordanian Oil Shale Fly Ash on Asphalt Mixes. — Ibrahim Asi and Abdullah Assa'ad; 17(5), 553-9 (2005).

Structural materials
Sensitivity Analysis in Reliability-Based Lifetime Performance Prediction Using Simulation. — Jung S. Kong and Dan M. Frangopol; 17(3), 296-306 (2005).

Subgrades
Laboratory Evaluation of the Geogauge and Light Falling Weight Deflectometer as Construction Control Tools. — Khalid A. Alshibli, Murad Abu-Farsakh, and Ekrem Seyman; 17(5), 560-9 (2005).

Sulfates
Enhanced Performance of Stabilized By-Product Gypsum. — Mingjiang Tao and Zhongjie Zhang; 17(6), 617-23 (2005).

Temperature
Effect of Radial Inhomogeneity on Shear Properties of Asphalt Mixtures. — Haleh Azari, Richard McCuen, and Kevin Stuart; 17(1), 80-8 (2005).
Rapid-Hardening Concrete Mixes. — Husam Najm and Perumalsamy Balaguru; 17(2), 198-206 (2005).
Is Low-Temperature Creep of Asphalt Mastic Independent of Filler Shape and Mineralogy?—

Arguments from Multiscale Analysis. — Roman Lackner, Markus Spiegl, Ronald Blab, and Josef Eberhardsteiner; 17(5), 485-91 (2005).

Temperature effects

Factors Affecting Binder Properties between Production and Construction. — Edith Arámbula Mercado, Amy Epps Martin, Eun Sug Park, Clifford Spiegelman, and Charles J. Glover; 17(1), 89-98 (2005).

Assessment of Temperature Fluctuations in Asphalt Pavements Due to Thermal Environmental Conditions Using a Two-Dimensional, Transient Finite-Difference Approach. — C. Yavuzturk, K. Ksaibati, and A. D. Chiasson; 17(4), 465-75 (2005).

Temperature measurement

New Measurement of Thermal Properties of Superpave Asphalt Concrete. — Joseph Luca and Donath Mrawira; 17(1), 72-9 (2005).

Tensile loads

Behavior of Hybrid-Fiber Engineered Cementitious Composites Subjected to Dynamic Tensile Loading and Projectile Impact. — Mohamed Maalej, Ser Tong Quek, and Jing Zhang; 17(2), 143-52 (2005).

Tensile strength

Does Calcium Leaching Increase Ductility of Cementitious Materials? Evidence from Direct Tensile Tests. — F. H. Heukamp, F.-J. Ulm, and J. T. Germaine; 17(3), 307-12 (2005).

Bending and Uniaxial Tensile Tests on Concrete Reinforced with Hybrid Steel Fibers. — L. G. Sorelli, A. Meda, and G. A. Plizzari; 17(5), 519-27 (2005).

Direct Measurement of Asphalt Binder Thermal Cracking. — Sang-Soo Kim; 17(6), 632-9 (2005).

New Test for Determination of Masonry Tensile Bond Strength. — Fouad M. Khalaf; 17(6), 725-32 (2005).

Tensile stress

Anisotropic Properties of Asphalt Concrete: Characterization and Implications for Pavement Design and Analysis. — Linbing Wang, Laureano R. Hoyos, Jay Wang, George Voyiadjis, and Chris Abadie; 17(5), 535-43 (2005).

Tensions

New Test for Determination of Masonry Tensile Bond Strength. — Fouad M. Khalaf; 17(6), 725-32 (2005).

Texas

Factors Affecting Binder Properties between Production and Construction. — Edith Arámbula Mercado, Amy Epps Martin, Eun Sug Park, Clifford Spiegelman, and Charles J. Glover; 17(1), 89-98 (2005).

Theories

Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part III: Theoretical Aspects. — K. N. E. Verghese, N. S. Broyles, S. W. Case, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 343-52 (2005).

Thermal diffusion

New Measurement of Thermal Properties of Superpave Asphalt Concrete. — Joseph Luca and Donath Mrawira; 17(1), 72-9 (2005).

Thermal factors

Thermal Degradation of Heterogeneous Concrete Materials. — K. Willam, I. Rhee, and Y. Xi; 17(3), 276-85 (2005).

Viscoelastoplastic Continuum Damage Model Application to Thermal Cracking of Asphalt Concrete. — Ghassan R. Chehab and Y. Richard Kim; 17(4), 384-92 (2005).

Thermal properties

New Measurement of Thermal Properties of Superpave Asphalt Concrete. — Joseph Luca and Donath Mrawira; 17(1), 72-9 (2005).

Thermal stresses

Direct Measurement of Asphalt Binder Thermal Cracking. — Sang-Soo Kim; 17(6), 632-9 (2005).

Thickness

Effect of Curing and Deterioration on Stress Wave Velocities in Concrete. — Andrew J. Boyd and Christopher C. Ferraro; 17(2), 153-8 (2005).

Three-dimensional models

Compression Behavior and Failure Mechanisms of Concrete Masonry Prisms. — Hasan Orhun Köksal, Cengiz Karakoç, and Hakki Yildirim; 17(1), 107-15 (2005).

Timber construction

Effects of Decay on the Cyclic Properties of Nailed Connections. — Scott M. Kent, Robert J. Leichti, David V. Rosowsky, and Jeffrey J. Morrell; 17(5), 579-85 (2005).

Capacities of Dowel-Type Fastener Joints in Australian Pine. — Ian Smith, Greg Foliente, Minh Nguyen, and Michael Syme; 17(6), 664-75 (2005).

Tires

Testing and Evaluation of Used Automobile Tires and Recycled Tire-Derived Materials for Low-Cost Crash Cushions. — Mustaque Hossain and Daniel T. Nabors; 17(1), 36-44 (2005).

Transfer functions

Development of an Analytical Method for Simultaneous Heat and Moisture Transfer in Building Materials Utilizing Transfer Function Method. — Menghao Qin and Rafik Belarbi; 17(5), 492-7 (2005).

Triaxial stress

Unified Yield Criterion for Masonry and Concrete in Multiaxial Stress States. — L. Bortolotti, S. Carta, and D. Cireddu; 17(1), 54-62 (2005).

Tunneling

Shotcrete Elasticity Revisited in the Framework of Continuum Micromechanics: From Submicron to Meter Level. — Christian Hellmich and Herbert Mang; 17(3), 246-56 (2005).

Ultimate loads

Behavior of Patch-Repaired Concrete Structural Elements under Increasing Static Loads to Flexural Failure. — O. Río, C. Andrade, D. Izquierdo, and C. Alonso; 17(2), 168-77 (2005).

Variance analysis

Application of Gray Relational Analysis to Evaluate HMA with Reclaimed Building Materials. — Der-Hsien Shen and Jia-Chong Du; 17(4), 400-6 (2005).

Viscoelasticity

Asphalt Mixes Deformation Sensitivity to Change in Rheological Parameters. — Antoni Szydlo and Piotr Mackiewicz; 17(1), 1-9 (2005).

Phenomenological Model for Monotonic and Cyclic Behavior of Pure Bitumen. — E. A. Ossa, V. S. Deshpande, and D. Cebon; 17(2), 188-97 (2005).

Viscoelastoplastic Continuum Damage Model Application to Thermal Cracking of Asphalt Concrete. — Ghassan R. Chehab and Y. Richard Kim; 17(4), 384-92 (2005).

Damage-Induced Modeling of Asphalt Mixtures through Computational Micromechanics and Cohesive Zone Fracture. — Yong-Rak Kim, D. H. Allen, and D. N. Little; 17(5), 477-84 (2005).

Viscoelastic–Viscoplastic Model with Damage for Asphalt Concrete. — Jacob Uzan; 17(5), 528-34 (2005).

Viscoplasticity

Viscoelastoplastic Continuum Damage Model Application to Thermal Cracking of Asphalt Concrete. — Ghassan R. Chehab and Y. Richard Kim; 17(4), 384-92 (2005).

Viscoelastic–Viscoplastic Model with Damage for Asphalt Concrete. — Jacob Uzan; 17(5), 528-34 (2005).

Volcanic ash

Performance of Volcanic Ash Based Precast and In Situ Blended Cement Concretes in Marine Environment. — Khandaker M. Anwar Hossain; 17(6), 694-702 (2005).

Waste management

Ladle Furnace Slag in Construction. — Juan M. Manso, Milagros Losañez, Juan A. Polanco, and Javier J. Gonzalez; 17(5), 513-8 (2005).

Waste sites

Large-Scale Cutoff Wall Model Test Using Ethanol Bentonite Slurry. — M. Asada, A. Ishikawa, and S. Horiuchi; 17(6), 719-24 (2005).

Water

Effect of Water Sorption on Performance of Pultruded E-Glass/Vinylester Composites. — Wellington Chu and Vistasp M. Karbhari; 17(1), 63-71 (2005).

Weathering

Effect of Alloy Composition on Atmospheric Corrosion of Weathering Steel. — Richard H. McCuen and Pedro Albrecht; 17(2), 117-25 (2005).

Monitoring of Origin and Evolution of Building Stones through Their Major Components. — A. C. Iñigo, F. J. López-Moro, S. Vicente-Tavera, and V. Rives; 17(4), 440-6 (2005).

Weight

Laboratory Evaluation of the Geogauge and Light Falling Weight Deflectometer as Construction Control Tools. — Khalid A. Alshibli, Murad Abu-Farsakh, and Ekrem Seyman; 17(5), 560-9 (2005).

Wood

Capacities of Dowel-Type Fastener Joints in Australian Pine. — Ian Smith, Greg Foliente, Minh Nguyen, and Michael Syme; 17(6), 664-75 (2005).

Wood structures

Effects of Decay on the Cyclic Properties of Nailed Connections. — Scott M. Kent, Robert J. Leichti, David V. Rosowsky, and Jeffrey J. Morrell; 17(5), 579-85 (2005).

Author Index

Abadie, Chris
Unified Method to Quantify Aggregate Shape Angularity and Texture Using Fourier Analysis. — Linbing Wang, Xingran Wang, Louay Mohammad, and Chris Abadie; 17(5), 498-504 (2005).
Anisotropic Properties of Asphalt Concrete: Characterization and Implications for Pavement Design and Analysis. — Linbing Wang, Laureano R. Hoyos, Jay Wang, George Voyiadjis, and Chris Abadie; 17(5), 535-43 (2005).

Abu-Farsakh, Murad
Laboratory Evaluation of the Geogauge and Light Falling Weight Deflectometer as Construction Control Tools. — Khalid A. Alshibli, Murad Abu-Farsakh, and Ekrem Seyman; 17(5), 560-9 (2005).

Albrecht, Pedro
Effect of Alloy Composition on Atmospheric Corrosion of Weathering Steel. — Richard H. McCuen and Pedro Albrecht; 17(2), 117-25 (2005).

Allen, D. H.
Damage-Induced Modeling of Asphalt Mixtures through Computational Micromechanics and Cohesive Zone Fracture. — Yong-Rak Kim, D. H. Allen, and D. N. Little; 17(5), 477-84 (2005).

Alonso, C.
Behavior of Patch-Repaired Concrete Structural Elements under Increasing Static Loads to Flexural Failure. — O. Río, C. Andrade, D. Izquierdo, and C. Alonso; 17(2), 168-77 (2005).

Al-Oraimi, Salim
Evaluation of Open-Graded Friction Course Mixtures Containing Cellulose Fibers and Styrene Butadiene Rubber Polymer. — Hossam F. Hassan, Salim Al-Oraimi, and Ramzi Taha; 17(4), 416-22 (2005).

Alshibli, Khalid A.
Laboratory Evaluation of the Geogauge and Light Falling Weight Deflectometer as Construction Control Tools. — Khalid A. Alshibli, Murad Abu-Farsakh, and Ekrem Seyman; 17(5), 560-9 (2005).

Andrade, C.
Behavior of Patch-Repaired Concrete Structural Elements under Increasing Static Loads to Flexural Failure. — O. Río, C. Andrade, D. Izquierdo, and C. Alonso; 17(2), 168-77 (2005).

Arora, Sunil
Class F Fly-Ash-Amended Soils as Highway Base Materials. — Sunil Arora and Ahmet H. Aydilek; 17(6), 640-9 (2005).

Asada, M.
High-Density Bentonite Slurry for Seepage Barriers. — M. Asada and S. Horiuchi; 17(2), 178-87 (2005).
Large-Scale Cutoff Wall Model Test Using Ethanol Bentonite Slurry. — M. Asada, A. Ishikawa, and S. Horiuchi; 17(6), 719-24 (2005).

Asi, Ibrahim
Effect of Jordanian Oil Shale Fly Ash on Asphalt Mixes. — Ibrahim Asi and Abdullah Assa'ad; 17(5), 553-9 (2005).

Assa'ad, Abdullah
Effect of Jordanian Oil Shale Fly Ash on Asphalt Mixes. — Ibrahim Asi and Abdullah Assa'ad; 17(5), 553-9 (2005).

Aydilek, Ahmet H.
Class F Fly-Ash-Amended Soils as Highway Base Materials. — Sunil Arora and Ahmet H. Aydilek; 17(6), 640-9 (2005).

Azari, Haleh
Effect of Radial Inhomogeneity on Shear Properties of Asphalt Mixtures. — Haleh Azari, Richard McCuen, and Kevin Stuart; 17(1), 80-8 (2005).

Balaguru, Perumalsamy
Rapid-Hardening Concrete Mixes. — Husam Najm and Perumalsamy Balaguru; 17(2), 198-206 (2005).

Bazant, Zdenek P.
Model-Based Simulation of Durability of Materials and Structures. — Yunping Xi, Zdenek P. Bazant, Gilles Pijaudier-Cabot, and Zdenek Bittnar; 17(3), 239-40 (2005).

Belarbi, Rafik
Development of an Analytical Method for Simultaneous Heat and Moisture Transfer in Building Materials Utilizing Transfer Function Method. — Menghao Qin and Rafik Belarbi; 17(5), 492-7 (2005).

Bittnar, Zdenek
Model-Based Simulation of Durability of Materials and Structures. — Yunping Xi, Zdenek P. Bazant, Gilles Pijaudier-Cabot, and Zdenek Bittnar; 17(3), 239-40 (2005).

Blab, Ronald
Is Low-Temperature Creep of Asphalt Mastic Independent of Filler Shape and Mineralogy?— Arguments from Multiscale Analysis. — Roman Lackner, Markus Spiegl, Ronald Blab, and Josef Eberhardsteiner; 17(5), 485-91 (2005).

Bortolotti, L.
Unified Yield Criterion for Masonry and Concrete in Multiaxial Stress States. — L. Bortolotti, S. Carta, and D. Cireddu; 17(1), 54-62 (2005).

Botha, Francois D.
Cast-Concrete Products Made with FBC Ash and Wet-Collected Coal-Ash. — Tarun R. Naik, Rudolph N. Kraus, Yoon-moon Chun, and Francois D. Botha; 17(6), 659-63 (2005).

Boyd, Andrew J.
Effect of Curing and Deterioration on Stress Wave Velocities in Concrete. — Andrew J. Boyd and Christopher C. Ferraro; 17(2), 153-8 (2005).

Branthaver, Jan F.
Impact of Lime Modification of Asphalt and Freeze–Thaw Cycling on the Asphalt–Aggregate Interaction and Moisture Resistance to Moisture Damage. — Shin-Che Huang, Raymond E. Robertson, Jan F. Branthaver, and J. Claine Petersen; 17(6), 711-8 (2005).

Brown, Dan A.
Self-Consolidating Concrete for Use in Drilled Shaft Applications. — Donald Hodgson, III, Anton K. Schindler, Dan A. Brown, and Mary Stroup-Gardiner; 17(3), 363-9 (2005).

Broyles, N. S.
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part I: Processing and Static Mechanical Performance. — N. S. Broyles, K. N. E. Verghese, R. M. Davis, J. J. Lesko, and J. S. Riffle; 17(3), 320-33 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part II: Enviro-Mechanical Durability. — K. N. E. Verghese, N. S. Broyles, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 334-42 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part III: Theoretical Aspects. — K. N. E. Verghese, N. S. Broyles, S. W. Case, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 343-52 (2005).

Buchanan, M. Shane
Hot Mix Asphalt Mix Design Evaluation Using the Corelok Vacuum-Sealing Device. — M. Shane Buchanan and Thomas D. White; 17(2), 137-42 (2005).

Carta, S.
Unified Yield Criterion for Masonry and Concrete in Multiaxial Stress States. — L. Bortolotti, S. Carta, and D. Cireddu; 17(1), 54-62 (2005).

Case, S. W.
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part III: Theoretical Aspects. — K. N. E. Verghese, N. S. Broyles, S. W. Case, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 343-52 (2005).

Cebon, D.
Fracture Tests on Bitumen Films. — J. A. F. Harvey and D. Cebon; 17(1), 99-106 (2005).
Phenomenological Model for Monotonic and Cyclic Behavior of Pure Bitumen. — E. A. Ossa, V. S. Deshpande, and D. Cebon; 17(2), 188-97 (2005).

Chakrabarti, Srijib
Stabilization of Crushed Basaltic Rocks and Clay Mixtures Using Cementitious Additives. — Srijib Chakrabarti and Jayantha Kodikara; 17(4), 432-9 (2005).
Modeling of Moisture Diffusion in Crushed Basaltic Rock Stabilized with Cementitious Binders. — Jayantha Kodikara and Srijib Chakrabarti; 17(6), 703-10 (2005).

Chang, Seong Kyu
Application of Probabilistic Neural Networks for Prediction of Concrete Strength. — Doo Kie Kim, Jong Jae Lee, Jong Han Lee, and Seong Kyu Chang; 17(3), 353-62 (2005).

Chau, C. K.
Accelerated Assessment and Fuzzy Evaluation of Concrete Durability. — Zongjin Li, C. K. Chau, and Xiangming Zhou; 17(3), 257-63 (2005).

Chehab, Ghassan R.
Viscoelastoplastic Continuum Damage Model Application to Thermal Cracking of Asphalt Concrete. — Ghassan R. Chehab and Y. Richard Kim; 17(4), 384-92 (2005).

Chiasson, A. D.
Assessment of Temperature Fluctuations in Asphalt Pavements Due to Thermal Environmental Conditions Using a Two-Dimensional, Transient Finite-Difference Approach. — C. Yavuzturk, K. Ksaibati, and A. D. Chiasson; 17(4), 465-75 (2005).

Choi, Ying-Kit
RCC/Soil-Cement: What's the Difference? — Ying-Kit Choi and Kenneth D. Hansen; 17(4), 371-8 (2005).

Chong, Ken P.
Challenges in Mechanics and Materials Research in the Twenty-First Century. — Ken P. Chong and Jorn Larsen-Basse; 17(3), 241-5 (2005).

Chu, Wellington
Effect of Water Sorption on Performance of Pultruded E-Glass/Vinylester Composites. — Wellington Chu and Vistasp M. Karbhari; 17(1), 63-71 (2005).

Chun, Yoon-moon
Cast-Concrete Products Made with FBC Ash and Wet-Collected Coal-Ash. — Tarun R. Naik, Rudolph N. Kraus, Yoon-moon Chun, and Francois D. Botha; 17(6), 659-63 (2005).

Chung, D. D. L.
Dispersion of Short Fibers in Cement. — D. D. L. Chung; 17(4), 379-83 (2005).
Discussion of "Resistance Changes during Compression of Carbon Fiber Cement Composites" by Farhad Reza, Gordon B. Batson, Jerry A. Yamamuro, and Jong S. Lee. — D. D. L. Chung; 17(5), 605 (2005).

Cireddu, D.
Unified Yield Criterion for Masonry and Concrete in Multiaxial Stress States. — L. Bortolotti, S. Carta, and D. Cireddu; 17(1), 54-62 (2005).

Claine Petersen, J.
Impact of Lime Modification of Asphalt and Freeze–Thaw Cycling on the Asphalt–Aggregate Interaction and Moisture Resistance to Moisture Damage. — Shin-Che Huang, Raymond E. Robertson, Jan F. Branthaver, and J. Claine Petersen; 17(6), 711-8 (2005).

Das, Sarat Kumar
Geotechnical Characterization of Some Indian Fly Ashes. — Sarat Kumar Das and Yudhbir ; 17(5), 544-52 (2005).

Davis, R. M.
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part I: Processing and Static Mechanical Performance. — N. S. Broyles, K. N. E. Verghese, R. M. Davis, J. J. Lesko, and J. S. Riffle; 17(3), 320-33 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part II: Enviro-Mechanical Durability. — K. N. E. Verghese, N. S. Broyles, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 334-42 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part III: Theoretical Aspects. — K. N. E. Verghese, N. S. Broyles, S. W. Case, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 343-52 (2005).

Deshpande, N. P.
Prediction of 28 Days Compressive Strength of 53-Grade Cements Using Dimensional Analysis. — D. R. Phatak and N. P. Deshpande; 17(6), 733-5 (T) (2005).

Deshpande, V. S.
Phenomenological Model for Monotonic and Cyclic Behavior of Pure Bitumen. — E. A. Ossa, V. S. Deshpande, and D. Cebon; 17(2), 188-97 (2005).

DeVenny, Alan S.
Properties of New and Recycled Clay Brick Aggregates for Use in Concrete. — Fouad M. Khalaf and Alan S. DeVenny; 17(4), 456-64 (2005).

Doven, Ata G.
Material Properties of High Volume Fly Ash Cement Paste Structural Fill. — Ata G. Doven and Ayse Pekrioglu; 17(6), 686-93 (2005).

Du, Jia-Chong
Application of Gray Relational Analysis to Evaluate HMA with Reclaimed Building Materials. — Der-Hsien Shen and Jia-Chong Du; 17(4), 400-6 (2005).

Eberhardsteiner, Josef
Is Low-Temperature Creep of Asphalt Mastic Independent of Filler Shape and Mineralogy?—Arguments from Multiscale Analysis. — Roman Lackner, Markus Spiegl, Ronald Blab, and Josef Eberhardsteiner; 17(5), 485-91 (2005).

Elzafraney, Mohamed
Quantitative Microstructural Investigation of Deteriorated Reinforced Concrete Bridge Deck. — Mohamed Elzafraney and Parviz Soroushian; 17(2), 159-67 (2005).

Fantilli, Alessandro P.
Effect of Bar Diameter on the Behavior of Lightly Reinforced Concrete Beams. — Alessandro P. Fantilli, Daniele Ferretti, and Gianpaolo Rosati; 17(1), 10-8 (2005).

Feng, Maria Q.
Closure to "Application of Neural Networks for Estimation of Concrete Strength" by Jong-In Kim, Doo Kie Kim, Maria Q. Feng, and Frank Yazdani. — Jong-In Kim, Doo Kie Kim, Maria Q. Feng, and Frank Yazdani; 17(6), 738-9 (2005).

Ferraro, Christopher C.
Effect of Curing and Deterioration on Stress Wave Velocities in Concrete. — Andrew J. Boyd and Christopher C. Ferraro; 17(2), 153-8 (2005).

Ferretti, Daniele
Effect of Bar Diameter on the Behavior of Lightly Reinforced Concrete Beams. — Alessandro P. Fantilli, Daniele Ferretti, and Gianpaolo Rosati; 17(1), 10-8 (2005).

Foliente, Greg
Capacities of Dowel-Type Fastener Joints in Australian Pine. — Ian Smith, Greg Foliente, Minh Nguyen, and Michael Syme; 17(6), 664-75 (2005).

François, R.
Corrosion of Reinforcement in Relation to Presence of Defects at the Interface between Steel and Concrete. — T. A. Söylev and R. François; 17(4), 447-55 (2005).

Frangopol, Dan M.
Sensitivity Analysis in Reliability-Based Lifetime Performance Prediction Using Simulation. — Jung S. Kong and Dan M. Frangopol; 17(3), 296-306 (2005).

Frank, Andreas
Reinforcing Steel Strains Measured by Bragg Grating Sensors. — Albin Kenel, Philipp Nellen, Andreas Frank, and Peter Marti; 17(4), 423-31 (2005).

Germaine, J. T.
Does Calcium Leaching Increase Ductility of Cementitious Materials? Evidence from Direct Tensile Tests. — F. H. Heukamp, F.-J. Ulm, and J. T. Germaine; 17(3), 307-12 (2005).

Glover, Charles J.
Factors Affecting Binder Properties between Production and Construction. — Edith Arámbula Mercado, Amy Epps Martin, Eun Sug Park, Clifford Spiegelman, and Charles J. Glover; 17(1), 89-98 (2005).

Gonzalez, Javier J.
Ladle Furnace Slag in Construction. — Juan M. Manso, Milagros Losañez, Juan A. Polanco, and Javier J. Gonzalez; 17(5), 513-8 (2005).

Gordon, Robert
Evaluation of Wrought Iron for Continued Service in Historic Bridges. — Robert Gordon and Robert Knopf; 17(4), 393-9 (2005).

Gromotka, Roman
Influence of Ultrafine Fly Ash on the Early Age Response and the Shrinkage Cracking Potential of Concrete. — Kolluru V. Subramaniam, Roman Gromotka, Surendra P. Shah, Karthik Obla, and Russell Hill; 17(1), 45-53 (2005).

Hansen, Kenneth D.
RCC/Soil-Cement: What's the Difference? — Ying-Kit Choi and Kenneth D. Hansen; 17(4), 371-8 (2005).

Harvey, J. A. F.
Fracture Tests on Bitumen Films. — J. A. F. Harvey and D. Cebon; 17(1), 99-106 (2005).

Hassan, Hossam F.
Evaluation of Open-Graded Friction Course Mixtures Containing Cellulose Fibers and Styrene Butadiene Rubber Polymer. — Hossam F. Hassan, Salim Al-Oraimi, and Ramzi Taha; 17(4), 416-22 (2005).

Hellmich, Christian
Shotcrete Elasticity Revisited in the Framework of Continuum Micromechanics: From Submicron to Meter Level. — Christian Hellmich and Herbert Mang; 17(3), 246-56 (2005).

Heukamp, F. H.
Does Calcium Leaching Increase Ductility of Cementitious Materials? Evidence from Direct Tensile Tests. — F. H. Heukamp, F.-J. Ulm, and J. T. Germaine; 17(3), 307-12 (2005).

Hill, Russell
Influence of Ultrafine Fly Ash on the Early Age Response and the Shrinkage Cracking Potential of Concrete. — Kolluru V. Subramaniam, Roman Gromotka, Surendra P. Shah, Karthik Obla, and Russell Hill; 17(1), 45-53 (2005).

Hodgson, Donald, III
Self-Consolidating Concrete for Use in Drilled Shaft Applications. — Donald Hodgson, III, Anton K. Schindler, Dan A. Brown, and Mary Stroup-Gardiner; 17(3), 363-9 (2005).

Horiuchi, S.
High-Density Bentonite Slurry for Seepage Barriers. — M. Asada and S. Horiuchi; 17(2), 178-87 (2005).
Large-Scale Cutoff Wall Model Test Using Ethanol Bentonite Slurry. — M. Asada, A. Ishikawa, and S. Horiuchi; 17(6), 719-24 (2005).

Hossain, Khandaker M. Anwar
Performance of Volcanic Ash Based Precast and In Situ Blended Cement Concretes in Marine Environment. — Khandaker M. Anwar Hossain; 17(6), 694-702 (2005).

Hossain, Mustaque
Testing and Evaluation of Used Automobile Tires and Recycled Tire-Derived Materials for Low-Cost Crash Cushions. — Mustaque Hossain and Daniel T. Nabors; 17(1), 36-44 (2005).

Hoyos, Laureano R.
Anisotropic Properties of Asphalt Concrete: Characterization and Implications for Pavement Design and Analysis. — Linbing Wang, Laureano R. Hoyos, Jay Wang, George Voyiadjis, and Chris Abadie; 17(5), 535-43 (2005).

Huang, Shin-Che
Impact of Lime Modification of Asphalt and Freeze–Thaw Cycling on the Asphalt–Aggregate Interaction and Moisture Resistance to Moisture Damage. — Shin-Che Huang, Raymond E. Robertson, Jan F. Branthaver, and J. Claine Petersen; 17(6), 711-8 (2005).

Iñigo, A. C.
Monitoring of Origin and Evolution of Building Stones through Their Major Components. — A. C. Iñigo, F. J. López-Moro, S. Vicente-Tavera, and V. Rives; 17(4), 440-6 (2005).

Ishikawa, A.
Large-Scale Cutoff Wall Model Test Using Ethanol Bentonite Slurry. — M. Asada, A. Ishikawa, and S. Horiuchi; 17(6), 719-24 (2005).

Izquierdo, D.
Behavior of Patch-Repaired Concrete Structural Elements under Increasing Static Loads to Flexural Failure. — O. Río, C. Andrade, D. Izquierdo, and C. Alonso; 17(2), 168-77 (2005).

Jagadish, K. S.
Brick-Mortar Bond and Masonry Compressive Strength. — G. Sarangapani, B. V. Venkatarama Reddy, and K. S. Jagadish; 17(2), 229-37 (2005).

Jain, Ashu
Discussion of "Application of Neural Networks for Estimation of Concrete Strength" by Jong-In Kim, Doo Kie Kim, Maria Q. Feng, and Frank Yazdani. — Ashu Jain, Sudhir Misra, and Sanjeev Kumar Jha; 17(6), 736-8 (2005).

Jha, Sanjeev Kumar
Discussion of "Application of Neural Networks for Estimation of Concrete Strength" by Jong-In Kim, Doo Kie Kim, Maria Q. Feng, and Frank Yazdani. — Ashu Jain, Sudhir Misra, and Sanjeev Kumar Jha; 17(6), 736-8 (2005).

Karakoç, Cengiz
Compression Behavior and Failure Mechanisms of Concrete Masonry Prisms. — Hasan Orhun Köksal, Cengiz Karakoç, and Hakki Yildirim; 17(1), 107-15 (2005).

Karbhari, Vistasp M.
Effect of Water Sorption on Performance of Pultruded E-Glass/Vinylester Composites. — Wellington Chu and Vistasp M. Karbhari; 17(1), 63-71 (2005).

Kaushik, S. K.
Flexural Fatigue-Life Distributions of Plain and Fibrous Concrete at Various Stress Levels. — Yaghoub Mohammadi and S. K. Kaushik; 17(6), 650-8 (2005).

Kenel, Albin
Reinforcing Steel Strains Measured by Bragg Grating Sensors. — Albin Kenel, Philipp Nellen, Andreas Frank, and Peter Marti; 17(4), 423-31 (2005).

Kent, Scott M.
Effects of Decay on the Cyclic Properties of Nailed Connections. — Scott M. Kent, Robert J. Leichti, David V. Rosowsky, and Jeffrey J. Morrell; 17(5), 579-85 (2005).

Khalaf, Fouad M.
Properties of New and Recycled Clay Brick Aggregates for Use in Concrete. — Fouad M. Khalaf and Alan S. DeVenny; 17(4), 456-64 (2005).
New Test for Determination of Masonry Tensile Bond Strength. — Fouad M. Khalaf; 17(6), 725-32 (2005).

Khunthongkeaw, J.
Model for Simulating Carbonation of Fly Ash Concrete. — J. Khunthongkeaw and S. Tangtermsirikul; 17(5), 570-8 (2005).

Kim, Doo Kie
Application of Probabilistic Neural Networks for Prediction of Concrete Strength. — Doo Kie Kim, Jong Jae Lee, Jong Han Lee, and Seong Kyu Chang; 17(3), 353-62 (2005).
Closure to "Application of Neural Networks for Estimation of Concrete Strength" by Jong-In Kim, Doo Kie Kim, Maria Q. Feng, and Frank Yazdani. — Jong-In Kim, Doo Kie Kim, Maria Q. Feng, and Frank Yazdani; 17(6), 738-9 (2005).

Kim, Jong-In
Closure to "Application of Neural Networks for Estimation of Concrete Strength" by Jong-In Kim, Doo Kie Kim, Maria Q. Feng, and Frank Yazdani. — Jong-In Kim, Doo Kie Kim, Maria Q. Feng, and Frank Yazdani; 17(6), 738-9 (2005).

Kim, Sang-Soo
Direct Measurement of Asphalt Binder Thermal Cracking. — Sang-Soo Kim; 17(6), 632-9 (2005).

Kim, Y. Richard
Viscoelastoplastic Continuum Damage Model Application to Thermal Cracking of Asphalt Concrete. — Ghassan R. Chehab and Y. Richard Kim; 17(4), 384-92 (2005).

Kim, Yong-Rak
Damage-Induced Modeling of Asphalt Mixtures through Computational Micromechanics and Cohesive Zone Fracture. — Yong-Rak Kim, D. H. Allen, and D. N. Little; 17(5), 477-84 (2005).

Knopf, Robert
Evaluation of Wrought Iron for Continued Service in Historic Bridges. — Robert Gordon and Robert Knopf; 17(4), 393-9 (2005).

Kodama, Katsumi
Central Peeling Failure Behavior of Polymer Cement Mortar Retrofitting of Reinforced Concrete Beams. — Kouichi Satoh and Katsumi Kodama; 17(2), 126-36 (2005).

Kodikara, Jayantha
Stabilization of Crushed Basaltic Rocks and Clay Mixtures Using Cementitious Additives. — Srijib Chakrabarti and Jayantha Kodikara; 17(4), 432-9 (2005).
Modeling of Moisture Diffusion in Crushed Basaltic Rock Stabilized with Cementitious Binders. — Jayantha Kodikara and Srijib Chakrabarti; 17(6), 703-10 (2005).

Köksal, Hasan Orhun
Compression Behavior and Failure Mechanisms of Concrete Masonry Prisms. — Hasan Orhun Köksal, Cengiz Karakoç, and Hakki Yildirim; 17(1), 107-15 (2005).

Kong, Jung S.
Sensitivity Analysis in Reliability-Based Lifetime Performance Prediction Using Simulation. — Jung S. Kong and Dan M. Frangopol; 17(3), 296-306 (2005).

Kraus, Rudolph N.
Cast-Concrete Products Made with FBC Ash and Wet-Collected Coal-Ash. — Tarun R. Naik, Rudolph N. Kraus, Yoon-moon Chun, and Francois D. Botha; 17(6), 659-63 (2005).

Ksaibati, K.
Assessment of Temperature Fluctuations in Asphalt Pavements Due to Thermal Environmental Conditions Using a Two-Dimensional, Transient Finite-Difference Approach. — C. Yavuzturk, K. Ksaibati, and A. D. Chiasson; 17(4), 465-75 (2005).

Lackner, Roman
Is Low-Temperature Creep of Asphalt Mastic Independent of Filler Shape and Mineralogy?—Arguments from Multiscale Analysis. — Roman Lackner, Markus Spiegl, Ronald Blab, and Josef Eberhardsteiner; 17(5), 485-91 (2005).

Larsen-Basse, Jorn
Challenges in Mechanics and Materials Research in the Twenty-First Century. — Ken P. Chong and Jorn Larsen-Basse; 17(3), 241-5 (2005).

Lawler, John S.
Microfiber and Macrofiber Hybrid Fiber-Reinforced Concrete. — John S. Lawler, Davide Zampini, and Surendra P. Shah; 17(5), 595-604 (2005).

Lee, Jong Han
Application of Probabilistic Neural Networks for Prediction of Concrete Strength. — Doo Kie Kim, Jong Jae Lee, Jong Han Lee, and Seong Kyu Chang; 17(3), 353-62 (2005).

Lee, Jong Jae
Application of Probabilistic Neural Networks for Prediction of Concrete Strength. — Doo Kie Kim, Jong Jae Lee, Jong Han Lee, and Seong Kyu Chang; 17(3), 353-62 (2005).

Leichti, Robert J.
Effects of Decay on the Cyclic Properties of Nailed Connections. — Scott M. Kent, Robert J. Leichti, David V. Rosowsky, and Jeffrey J. Morrell; 17(5), 579-85 (2005).

Lesko, J. J.
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part I: Processing and Static Mechanical Performance. — N. S. Broyles, K. N. E. Verghese, R. M. Davis, J. J. Lesko, and J. S. Riffle; 17(3), 320-33 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part II: Enviro-Mechanical Durability. — K. N. E. Verghese, N. S. Broyles, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 334-42 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part III: Theoretical Aspects. — K. N. E. Verghese, N. S. Broyles, S. W. Case, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 343-52 (2005).

Li, Hui
Strain Self-Sensing Property and Strain Rate Dependent Constitutive Model of Austenitic Shape Memory Alloy: Experiment and Theory. — Hui Li, Chen-Xi Mao, and Jin-Ping Ou; 17(6), 676-85 (2005).

Li, Yongqi
Two-Step Approach to Prediction of Asphalt Concrete Modulus from Two-Phase Micromechanical Models. — Yongqi Li and John B. Metcalf; 17(4), 407-15 (2005).

Li, Zongjin
Characterizing Rheology of Fresh Short Fiber Reinforced Cementitious Composite through Capillary Extrusion. — Xiangming Zhou and Zongjin Li; 17(1), 28-35 (2005).
Accelerated Assessment and Fuzzy Evaluation of Concrete Durability. — Zongjin Li, C. K. Chau, and Xiangming Zhou; 17(3), 257-63 (2005).
Short Fiber Reinforced Geopolymer Composites Manufactured by Extrusion. — Zongjin Li, Yunsheng Zhang, and Xiangming Zhou; 17(6), 624-31 (2005).

Little, D. N.
Damage-Induced Modeling of Asphalt Mixtures through Computational Micromechanics and Cohesive Zone Fracture. — Yong-Rak Kim, D. H. Allen, and D. N. Little; 17(5), 477-84 (2005).

Little, Dallas N.
Unique Effects of Hydrated Lime Filler on the Performance-Related Properties of Asphalt Cements: Physical and Chemical Interactions Revisited. — Dallas N. Little and J. Claine Petersen; 17(2), 207-18 (2005).

Lokuge, Weena P.
Stress–Strain Model for Laterally Confined Concrete. — Weena P. Lokuge, J. G. Sanjayan, and Sujeeva Setunge; 17(6), 607-16 (2005).

López-Moro, F. J.
Monitoring of Origin and Evolution of Building Stones through Their Major Components. — A. C. Iñigo, F. J. López-Moro, S. Vicente-Tavera, and V. Rives; 17(4), 440-6 (2005).

Losañez, Milagros
Ladle Furnace Slag in Construction. — Juan M. Manso, Milagros Losañez, Juan A. Polanco, and Javier J. Gonzalez; 17(5), 513-8 (2005).

Luca, Joseph
New Measurement of Thermal Properties of Superpave Asphalt Concrete. — Joseph Luca and Donath Mrawira; 17(1), 72-9 (2005).

Maalej, Mohamed
Behavior of Hybrid-Fiber Engineered Cementitious Composites Subjected to Dynamic Tensile Loading and Projectile Impact. — Mohamed Maalej, Ser Tong Quek, and Jing Zhang; 17(2), 143-52 (2005).

Mackiewicz, Piotr
Asphalt Mixes Deformation Sensitivity to Change in Rheological Parameters. — Antoni Szydlo and Piotr Mackiewicz; 17(1), 1-9 (2005).

Mang, Herbert
Shotcrete Elasticity Revisited in the Framework of Continuum Micromechanics: From Submicron to Meter Level. — Christian Hellmich and Herbert Mang; 17(3), 246-56 (2005).

Manso, Juan M.
Ladle Furnace Slag in Construction. — Juan M. Manso, Milagros Losañez, Juan A. Polanco, and Javier J. Gonzalez; 17(5), 513-8 (2005).

Mao, Chen-Xi
Strain Self-Sensing Property and Strain Rate Dependent Constitutive Model of Austenitic Shape Memory Alloy: Experiment and Theory. — Hui Li, Chen-Xi Mao, and Jin-Ping Ou; 17(6), 676-85 (2005).

Marti, Peter
Reinforcing Steel Strains Measured by Bragg Grating Sensors. — Albin Kenel, Philipp Nellen, Andreas Frank, and Peter Marti; 17(4), 423-31 (2005).

Martin, Amy Epps
Factors Affecting Binder Properties between Production and Construction. — Edith Arámbula Mercado, Amy Epps Martin, Eun Sug Park, Clifford Spiegelman, and Charles J. Glover; 17(1), 89-98 (2005).

Mason, Thomas O.
Procedure to Interpret Electrical Conductivity Measurements in Cover Concrete during Rewetting. — Farshad Rajabipour, Jason Weiss, John D. Shane, Thomas O. Mason, and Surendra P. Shah; 17(5), 586-94 (2005).

McCuen, Richard
Effect of Radial Inhomogeneity on Shear Properties of Asphalt Mixtures. — Haleh Azari, Richard McCuen, and Kevin Stuart; 17(1), 80-8 (2005).

McCuen, Richard H.
Effect of Alloy Composition on Atmospheric Corrosion of Weathering Steel. — Richard H. McCuen and Pedro Albrecht; 17(2), 117-25 (2005).

Meda, A.
Bending and Uniaxial Tensile Tests on Concrete Reinforced with Hybrid Steel Fibers. — L. G. Sorelli, A. Meda, and G. A. Plizzari; 17(5), 519-27 (2005).

Mercado, Edith Arámbula
Factors Affecting Binder Properties between Production and Construction. — Edith Arámbula Mercado, Amy Epps Martin, Eun Sug Park, Clifford Spiegelman, and Charles J. Glover; 17(1), 89-98 (2005).

Metcalf, John B.
Two-Step Approach to Prediction of Asphalt Concrete Modulus from Two-Phase Micromechanical Models. — Yongqi Li and John B. Metcalf; 17(4), 407-15 (2005).

Misra, Sudhir
Discussion of "Application of Neural Networks for Estimation of Concrete Strength" by Jong-In Kim, Doo Kie Kim, Maria Q. Feng, and Frank Yazdani. — Ashu Jain, Sudhir Misra, and Sanjeev Kumar Jha; 17(6), 736-8 (2005).

Mohammad, Louay
Unified Method to Quantify Aggregate Shape Angularity and Texture Using Fourier Analysis. — Linbing Wang, Xingran Wang, Louay Mohammad, and Chris Abadie; 17(5), 498-504 (2005).

Mohammadi, Yaghoub
Flexural Fatigue-Life Distributions of Plain and Fibrous Concrete at Various Stress Levels. — Yaghoub Mohammadi and S. K. Kaushik; 17(6), 650-8 (2005).

Morrell, Jeffrey J.
Effects of Decay on the Cyclic Properties of Nailed Connections. — Scott M. Kent, Robert J. Leichti, David V. Rosowsky, and Jeffrey J. Morrell; 17(5), 579-85 (2005).

Mrawira, Donath
New Measurement of Thermal Properties of Superpave Asphalt Concrete. — Joseph Luca and Donath Mrawira; 17(1), 72-9 (2005).

Nabors, Daniel T.
Testing and Evaluation of Used Automobile Tires and Recycled Tire-Derived Materials for Low-Cost Crash Cushions. — Mustaque Hossain and Daniel T. Nabors; 17(1), 36-44 (2005).

Naik, Tarun R.
Cast-Concrete Products Made with FBC Ash and Wet-Collected Coal-Ash. — Tarun R. Naik, Rudolph N. Kraus, Yoon-moon Chun, and Francois D. Botha; 17(6), 659-63 (2005).

Najm, Husam
Rapid-Hardening Concrete Mixes. — Husam Najm and Perumalsamy Balaguru; 17(2), 198-206 (2005).

Nakhi, Ammar
Composite Damage Models for Diffusivity of Distressed Materials. — Yunping Xi and Ammar Nakhi; 17(3), 286-95 (2005).

Nellen, Philipp
Reinforcing Steel Strains Measured by Bragg Grating Sensors. — Albin Kenel, Philipp Nellen, Andreas Frank, and Peter Marti; 17(4), 423-31 (2005).

Nguyen, Minh
Capacities of Dowel-Type Fastener Joints in Australian Pine. — Ian Smith, Greg Foliente, Minh Nguyen, and Michael Syme; 17(6), 664-75 (2005).

Obla, Karthik
Influence of Ultrafine Fly Ash on the Early Age Response and the Shrinkage Cracking Potential of Concrete. — Kolluru V. Subramaniam, Roman Gromotka, Surendra P. Shah, Karthik Obla, and Russell Hill; 17(1), 45-53 (2005).

Ossa, E. A.
Phenomenological Model for Monotonic and Cyclic Behavior of Pure Bitumen. — E. A. Ossa, V. S. Deshpande, and D. Cebon; 17(2), 188-97 (2005).

Ou, Jin-Ping
Strain Self-Sensing Property and Strain Rate Dependent Constitutive Model of Austenitic Shape Memory Alloy: Experiment and Theory. — Hui Li, Chen-Xi Mao, and Jin-Ping Ou; 17(6), 676-85 (2005).

Park, Eun Sug
Factors Affecting Binder Properties between Production and Construction. — Edith Arámbula Mercado, Amy Epps Martin, Eun Sug Park, Clifford Spiegelman, and Charles J. Glover; 17(1), 89-98 (2005).

Pekrioglu, Ayse
Material Properties of High Volume Fly Ash Cement Paste Structural Fill. — Ata G. Doven and Ayse Pekrioglu; 17(6), 686-93 (2005).

Petersen, J. Claine
Unique Effects of Hydrated Lime Filler on the Performance-Related Properties of Asphalt Cements: Physical and Chemical Interactions Revisited. — Dallas N. Little and J. Claine Petersen; 17(2), 207-18 (2005).

Phatak, D. R.
Prediction of 28 Days Compressive Strength of 53-Grade Cements Using Dimensional Analysis. — D. R. Phatak and N. P. Deshpande; 17(6), 733-5 (T) (2005).

Pijaudier-Cabot, Gilles
Model-Based Simulation of Durability of Materials and Structures. — Yunping Xi, Zdenek P. Bazant, Gilles Pijaudier-Cabot, and Zdenek Bittnar; 17(3), 239-40 (2005).

Plizzari, G. A.
Bending and Uniaxial Tensile Tests on Concrete Reinforced with Hybrid Steel Fibers. — L. G. Sorelli, A. Meda, and G. A. Plizzari; 17(5), 519-27 (2005).

Polanco, Juan A.
Ladle Furnace Slag in Construction. — Juan M. Manso, Milagros Losañez, Juan A. Polanco, and Javier J. Gonzalez; 17(5), 513-8 (2005).

Puatatsananon, W.
Nonlinear Coupling of Carbonation and Chloride Diffusion in Concrete. — W. Puatatsananon and V. E. Saouma; 17(3), 264-75 (2005).

Qin, Menghao
Development of an Analytical Method for Simultaneous Heat and Moisture Transfer in Building Materials Utilizing Transfer Function Method. — Menghao Qin and Rafik Belarbi; 17(5), 492-7 (2005).

Quek, Ser Tong
Behavior of Hybrid-Fiber Engineered Cementitious Composites Subjected to Dynamic Tensile Loading and Projectile Impact. — Mohamed Maalej, Ser Tong Quek, and Jing Zhang; 17(2), 143-52 (2005).

Rajabipour, Farshad
Procedure to Interpret Electrical Conductivity Measurements in Cover Concrete during Rewetting. — Farshad Rajabipour, Jason Weiss, John D. Shane, Thomas O. Mason, and Surendra P. Shah; 17(5), 586-94 (2005).

Reza, F.
Closure to "Resistance Changes during Compression of Carbon Fiber Cement Composites" by Farhad Reza, Gordon B. Batson, Jerry A. Yamamuro, and Jong S. Lee. — F. Reza; 17(5), 605 (2005).

Rhee, I.
Thermal Degradation of Heterogeneous Concrete Materials. — K. Willam, I. Rhee, and Y. Xi; 17(3), 276-85 (2005).

Riffle, J. S.
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part I: Processing and Static Mechanical Performance. — N. S. Broyles, K. N. E. Verghese, R. M. Davis, J. J. Lesko, and J. S. Riffle; 17(3), 320-33 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part II: Enviro-Mechanical Durability. — K. N. E. Verghese, N. S. Broyles, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 334-42 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part III: Theoretical Aspects. — K. N. E. Verghese, N. S. Broyles, S. W. Case, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 343-52 (2005).

Río, O.
Behavior of Patch-Repaired Concrete Structural Elements under Increasing Static Loads to Flexural Failure. — O. Río, C. Andrade, D. Izquierdo, and C. Alonso; 17(2), 168-77 (2005).

Rives, V.
Monitoring of Origin and Evolution of Building Stones through Their Major Components. — A. C. Iñigo, F. J. López-Moro, S. Vicente-Tavera, and V. Rives; 17(4), 440-6 (2005).

Robertson, Raymond E.
Impact of Lime Modification of Asphalt and Freeze–Thaw Cycling on the Asphalt–Aggregate Interaction and Moisture Resistance to Moisture Damage. — Shin-Che Huang, Raymond E. Robertson, Jan F. Branthaver, and J. Claine Petersen; 17(6), 711-8 (2005).

Rosati, Gianpaolo
Effect of Bar Diameter on the Behavior of Lightly Reinforced Concrete Beams. — Alessandro P. Fantilli, Daniele Ferretti, and Gianpaolo Rosati; 17(1), 10-8 (2005).

Rosowsky, David V.
Effects of Decay on the Cyclic Properties of Nailed Connections. — Scott M. Kent, Robert J. Leichti, David V. Rosowsky, and Jeffrey J. Morrell; 17(5), 579-85 (2005).

Saetta, Anna V.
Deterioration of Reinforced Concrete Structures due to Chemical–Physical Phenomena: Model-Based Simulation. — Anna V. Saetta; 17(3), 313-9 (2005).

Sanjayan, J. G.
Stress–Strain Model for Laterally Confined Concrete. — Weena P. Lokuge, J. G. Sanjayan, and Sujeeva Setunge; 17(6), 607-16 (2005).

Saouma, V. E.
Nonlinear Coupling of Carbonation and Chloride Diffusion in Concrete. — W. Puatatsananon and V. E. Saouma; 17(3), 264-75 (2005).

Sarangapani, G.
Brick-Mortar Bond and Masonry Compressive Strength. — G. Sarangapani, B. V. Venkatarama Reddy, and K. S. Jagadish; 17(2), 229-37 (2005).

Satoh, Kouichi
Central Peeling Failure Behavior of Polymer Cement Mortar Retrofitting of Reinforced Concrete Beams. — Kouichi Satoh and Katsumi Kodama; 17(2), 126-36 (2005).

Schindler, Anton K.
Self-Consolidating Concrete for Use in Drilled Shaft Applications. — Donald Hodgson, III, Anton K. Schindler, Dan A. Brown, and Mary Stroup-Gardiner; 17(3), 363-9 (2005).

Seow, Puay Eng Constance
Failure Surface for Concrete under Multiaxial Load—a Unified Approach. — Puay Eng Constance Seow and Somsak Swaddiwudhipong; 17(2), 219-28 (2005).

Setunge, Sujeeva
Stress–Strain Model for Laterally Confined Concrete. — Weena P. Lokuge, J. G. Sanjayan, and Sujeeva Setunge; 17(6), 607-16 (2005).

Seyhan, Umit
Anisotropic Aggregate Base Inputs for Mechanistic Pavement Analysis Considering Effects of Moving Wheel Loads. — Umit Seyhan, Erol Tutumluer, and Hamza Yesilyurt; 17(5), 505-12 (2005).

Seyman, Ekrem
Laboratory Evaluation of the Geogauge and Light Falling Weight Deflectometer as Construction Control Tools. — Khalid A. Alshibli, Murad Abu-Farsakh, and Ekrem Seyman; 17(5), 560-9 (2005).

Shah, Surendra P.
Influence of Ultrafine Fly Ash on the Early Age Response and the Shrinkage Cracking Potential of Concrete. — Kolluru V. Subramaniam, Roman Gromotka, Surendra P. Shah, Karthik Obla, and Russell Hill; 17(1), 45-53 (2005).
Procedure to Interpret Electrical Conductivity Measurements in Cover Concrete during Rewetting. — Farshad Rajabipour, Jason Weiss, John D. Shane, Thomas O. Mason, and Surendra P. Shah; 17(5), 586-94 (2005).
Microfiber and Macrofiber Hybrid Fiber-Reinforced Concrete. — John S. Lawler, Davide Zampini, and Surendra P. Shah; 17(5), 595-604 (2005).

Shane, John D.
Procedure to Interpret Electrical Conductivity Measurements in Cover Concrete during Rewetting. — Farshad Rajabipour, Jason Weiss, John D. Shane, Thomas O. Mason, and Surendra P. Shah; 17(5), 586-94 (2005).

Shen, Der-Hsien
Application of Gray Relational Analysis to Evaluate HMA with Reclaimed Building Materials. — Der-Hsien Shen and Jia-Chong Du; 17(4), 400-6 (2005).

Sivakumar, K.
Discussion of "Carbonation-Porosity-Strength Model for Fly Ash Concrete" by Cengiz Duran Atiş. — K. Sivakumar; 17(1), 116 (2005).

Smith, Ian
Capacities of Dowel-Type Fastener Joints in Australian Pine. — Ian Smith, Greg Foliente, Minh Nguyen, and Michael Syme; 17(6), 664-75 (2005).

Sorelli, L. G.
Bending and Uniaxial Tensile Tests on Concrete Reinforced with Hybrid Steel Fibers. — L. G. Sorelli, A. Meda, and G. A. Plizzari; 17(5), 519-27 (2005).

Soroushian, Parviz
Quantitative Microstructural Investigation of Deteriorated Reinforced Concrete Bridge Deck. — Mohamed Elzafraney and Parviz Soroushian; 17(2), 159-67 (2005).

Söylev, T. A.
Corrosion of Reinforcement in Relation to Presence of Defects at the Interface between Steel and Concrete. — T. A. Söylev and R. François; 17(4), 447-55 (2005).

Spiegelman, Clifford
Factors Affecting Binder Properties between Production and Construction. — Edith Arámbula Mercado, Amy Epps Martin, Eun Sug Park, Clifford Spiegelman, and Charles J. Glover; 17(1), 89-98 (2005).

Spiegl, Markus
Is Low-Temperature Creep of Asphalt Mastic Independent of Filler Shape and Mineralogy?—Arguments from Multiscale Analysis. — Roman Lackner, Markus Spiegl, Ronald Blab, and Josef Eberhardsteiner; 17(5), 485-91 (2005).

Stroup-Gardiner, Mary
Self-Consolidating Concrete for Use in Drilled Shaft Applications. — Donald Hodgson, III, Anton K. Schindler, Dan A. Brown, and Mary Stroup-Gardiner; 17(3), 363-9 (2005).

Stuart, Kevin
Effect of Radial Inhomogeneity on Shear Properties of Asphalt Mixtures. — Haleh Azari, Richard McCuen, and Kevin Stuart; 17(1), 80-8 (2005).

Subramaniam, Kolluru V.
Influence of Ultrafine Fly Ash on the Early Age Response and the Shrinkage Cracking Potential of Concrete. — Kolluru V. Subramaniam, Roman Gromotka, Surendra P. Shah, Karthik Obla, and Russell Hill; 17(1), 45-53 (2005).

Swaddiwudhipong, Somsak
Failure Surface for Concrete under Multiaxial Load—a Unified Approach. — Puay Eng Constance Seow and Somsak Swaddiwudhipong; 17(2), 219-28 (2005).

Syme, Michael
Capacities of Dowel-Type Fastener Joints in Australian Pine. — Ian Smith, Greg Foliente, Minh Nguyen, and Michael Syme; 17(6), 664-75 (2005).

Szydlo, Antoni
Asphalt Mixes Deformation Sensitivity to Change in Rheological Parameters. — Antoni Szydlo and Piotr Mackiewicz; 17(1), 1-9 (2005).

Taha, Ramzi
Evaluation of Open-Graded Friction Course Mixtures Containing Cellulose Fibers and Styrene Butadiene Rubber Polymer. — Hossam F. Hassan, Salim Al-Oraimi, and Ramzi Taha; 17(4), 416-22 (2005).

Tangtermsirikul, S.
Model for Simulating Carbonation of Fly Ash Concrete. — J. Khunthongkeaw and S. Tangtermsirikul; 17(5), 570-8 (2005).

Tao, Mingjiang
Enhanced Performance of Stabilized By-Product Gypsum. — Mingjiang Tao and Zhongjie Zhang; 17(6), 617-23 (2005).

Tarefder, Rafiqul Alam
Neural Network Model for Asphalt Concrete Permeability. — Rafiqul Alam Tarefder, Luther White, and Musharraf Zaman; 17(1), 19-27 (2005).

Tutumluer, Erol
Anisotropic Aggregate Base Inputs for Mechanistic Pavement Analysis Considering Effects of Moving Wheel Loads. — Umit Seyhan, Erol Tutumluer, and Hamza Yesilyurt; 17(5), 505-12 (2005).

Ulm, F.-J.
Does Calcium Leaching Increase Ductility of Cementitious Materials? Evidence from Direct Tensile Tests. — F. H. Heukamp, F.-J. Ulm, and J. T. Germaine; 17(3), 307-12 (2005).

Uzan, Jacob
Viscoelastic–Viscoplastic Model with Damage for Asphalt Concrete. — Jacob Uzan; 17(5), 528-34 (2005).

Venkatarama Reddy, B. V.
Brick-Mortar Bond and Masonry Compressive Strength. — G. Sarangapani, B. V. Venkatarama Reddy, and K. S. Jagadish; 17(2), 229-37 (2005).

Verghese, K. N. E.
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part I: Processing and Static Mechanical Performance. — N. S. Broyles, K. N. E. Verghese, R. M. Davis, J. J. Lesko, and J. S. Riffle; 17(3), 320-33 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part II: Enviro-Mechanical Durability. — K. N. E. Verghese, N. S. Broyles, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 334-42 (2005).
Pultruded Carbon Fiber/Vinyl Ester Composites Processed with Different Fiber Sizing Agents. Part III: Theoretical Aspects. — K. N. E. Verghese, N. S. Broyles, S. W. Case, J. J. Lesko, R. M. Davis, and J. S. Riffle; 17(3), 343-52 (2005).

Vicente-Tavera, S.
Monitoring of Origin and Evolution of Building Stones through Their Major Components. — A. C. Iñigo, F. J. López-Moro, S. Vicente-Tavera, and V. Rives; 17(4), 440-6 (2005).

Voyiadjis, George
Anisotropic Properties of Asphalt Concrete: Characterization and Implications for Pavement Design and Analysis. — Linbing Wang, Laureano R. Hoyos, Jay Wang, George Voyiadjis, and Chris Abadie; 17(5), 535-43 (2005).

Wang, Jay
Anisotropic Properties of Asphalt Concrete: Characterization and Implications for Pavement Design and Analysis. — Linbing Wang, Laureano R. Hoyos, Jay Wang, George Voyiadjis, and Chris Abadie; 17(5), 535-43 (2005).

Wang, Linbing
Unified Method to Quantify Aggregate Shape Angularity and Texture Using Fourier Analysis. — Linbing Wang, Xingran Wang, Louay Mohammad, and Chris Abadie; 17(5), 498-504 (2005).
Anisotropic Properties of Asphalt Concrete: Characterization and Implications for Pavement Design and Analysis. — Linbing Wang, Laureano R. Hoyos, Jay Wang, George Voyiadjis, and Chris Abadie; 17(5), 535-43 (2005).

Wang, Xingran
Unified Method to Quantify Aggregate Shape Angularity and Texture Using Fourier Analysis. — Linbing Wang, Xingran Wang, Louay Mohammad, and Chris Abadie; 17(5), 498-504 (2005).

Weiss, Jason
Procedure to Interpret Electrical Conductivity Measurements in Cover Concrete during Rewetting. — Farshad Rajabipour, Jason Weiss, John D. Shane, Thomas O. Mason, and Surendra P. Shah; 17(5), 586-94 (2005).

White, Luther
Neural Network Model for Asphalt Concrete Permeability. — Rafiqul Alam Tarefder, Luther White, and Musharraf Zaman; 17(1), 19-27 (2005).

White, Thomas D.
Hot Mix Asphalt Mix Design Evaluation Using the Corelok Vacuum-Sealing Device. — M. Shane Buchanan and Thomas D. White; 17(2), 137-42 (2005).

Willam, K.
Thermal Degradation of Heterogeneous Concrete Materials. — K. Willam, I. Rhee, and Y. Xi; 17(3), 276-85 (2005).

Xi, Y.
Thermal Degradation of Heterogeneous Concrete Materials. — K. Willam, I. Rhee, and Y. Xi; 17(3), 276-85 (2005).

Xi, Yunping
Model-Based Simulation of Durability of Materials and Structures. — Yunping Xi, Zdenek P. Bazant, Gilles Pijaudier-Cabot, and Zdenek Bittnar; 17(3), 239-40 (2005).
Composite Damage Models for Diffusivity of Distressed Materials. — Yunping Xi and Ammar Nakhi; 17(3), 286-95 (2005).

Yavuzturk, C.
Assessment of Temperature Fluctuations in Asphalt Pavements Due to Thermal Environmental Conditions Using a Two-Dimensional, Transient Finite-Difference Approach. — C. Yavuzturk, K. Ksaibati, and A. D. Chiasson; 17(4), 465-75 (2005).

Yazdani, Frank
Closure to "Application of Neural Networks for Estimation of Concrete Strength" by Jong-In Kim, Doo Kie Kim, Maria Q. Feng, and Frank Yazdani. — Jong-In Kim, Doo Kie Kim, Maria Q. Feng, and Frank Yazdani; 17(6), 738-9 (2005).

Yesilyurt, Hamza
Anisotropic Aggregate Base Inputs for Mechanistic Pavement Analysis Considering Effects of Moving Wheel Loads. — Umit Seyhan, Erol Tutumluer, and Hamza Yesilyurt; 17(5), 505-12 (2005).

Yildirim, Hakki
Compression Behavior and Failure Mechanisms of Concrete Masonry Prisms. — Hasan Orhun Köksal, Cengiz Karakoç, and Hakki Yildirim; 17(1), 107-15 (2005).

Yudhbir
Geotechnical Characterization of Some Indian Fly Ashes. — Sarat Kumar Das and Yudhbir ; 17(5), 544-52 (2005).

Zaman, Musharraf
Neural Network Model for Asphalt Concrete Permeability. — Rafiqul Alam Tarefder, Luther White, and Musharraf Zaman; 17(1), 19-27 (2005).

Zampini, Davide
Microfiber and Macrofiber Hybrid Fiber-Reinforced Concrete. — John S. Lawler, Davide Zampini, and Surendra P. Shah; 17(5), 595-604 (2005).

Zhang, Jing
Behavior of Hybrid-Fiber Engineered Cementitious Composites Subjected to Dynamic Tensile Loading and Projectile Impact. — Mohamed Maalej, Ser Tong Quek, and Jing Zhang; 17(2), 143-52 (2005).

Zhang, Yunsheng
Short Fiber Reinforced Geopolymer Composites Manufactured by Extrusion. — Zongjin Li, Yunsheng Zhang, and Xiangming Zhou; 17(6), 624-31 (2005).

Zhang, Zhongjie
Enhanced Performance of Stabilized By-Product Gypsum. — Mingjiang Tao and Zhongjie Zhang; 17(6), 617-23 (2005).

Zhou, Xiangming
Characterizing Rheology of Fresh Short Fiber Reinforced Cementitious Composite through Capillary Extrusion. — Xiangming Zhou and Zongjin Li; 17(1), 28-35 (2005).

Accelerated Assessment and Fuzzy Evaluation of Concrete Durability. — Zongjin Li, C. K. Chau, and Xiangming Zhou; 17(3), 257-63 (2005).

Short Fiber Reinforced Geopolymer Composites Manufactured by Extrusion. — Zongjin Li, Yunsheng Zhang, and Xiangming Zhou; 17(6), 624-31 (2005).